

The Beginnings and Development
of
German Business History

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EDITOR'S NOTE

This article because of its length is published as a Supplement to the Bulletin with the thought that it will be more useful in this form than as a series of articles.

It is the result of a survey by Dr. Redlich of an extensive historical literature on business firms and men and also general works within the broad field of German business history. The article is not intended to be primarily a bibliography but rather a description and evaluation of an intellectual movement. The value of the work derives largely, of course, from the author's familiarity with German economic history and its literature and his knowledge of the history of business.

This survey was started with a view to evaluating the collection of histories of German firms and biographies of German businessmen at the Baker Library of the Harvard Graduate School of Business Administration. While that collection, though highly selective, is of considerable size, it soon became evident that a broader study should be made to give greater substance and depth to the investigation.

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THE BEGINNINGS AND DEVELOPMENT OF GERMAN BUSINESS HISTORY

Business history has proved an attraction to German businessmen and German scholars over a considerable period of time—to the former as promoters of anniversary volumes or *Festschriften*, and to the latter occasionally as authors of such volumes but especially as investigators with broader interests. Why such has been the case, in comparison for example with the weaker attraction to corresponding groups in other European countries, is not easily explained. Perhaps it stemmed originally from the businessman's desire to achieve greater acceptance in a society in which inherited landownership and service in government and army had a conspicuous influence. At all events, one must take the length and breadth of German business history as facts.

By the term "business history," I have in mind much the same types of writing and the same types of historical inquiry that the term connotes in this country: namely, histories of firms, biographies of businessmen, and publications on business administration, business institutions, and business tools to the extent that they are both historical and treat their subjects with a view to their functions in the structure and operations of business. This selective principle excludes the rich German juridical literature on such subjects as the history of the bill of exchange, the partnership, *Partenreederei*, and the like; it also excludes the extensive German economic literature on the *Unternehmer* (entrepreneur) and on *Unternehmergewinn* (entrepreneurial profit), theoretical in character.¹

However, I do find myself, at least in minor degrees, pushing my inquiries into German activities more broadly than a business historian would, in the "strict constructionist" American sense of the term. For instance, I shall cite some writings in economic history if and

¹ To be sure, the business historian should find familiarity with this material rewarding. Most of the pertinent publications on the entrepreneur and entrepreneurial profit are cited in the list of references to Chapter I of my book, *History of American Business Leaders*, I (Ann Arbor, 1940), 161 ff. Moreover, an unpublished bibliography of German publications on the entrepreneur for the period 1939-1948, compiled in Germany for the Research Center in Entrepreneurial History, is in the latter's files.

when the pieces in question contributed to the advance of German business history. Any two subjects with such close intellectual ties are bound to have influence on one another; and perhaps this is likely to be particularly true in the present case. Economic and business histories seem to me to possess "reciprocities of perspective," if I may borrow a phrase from Theodor Litt. The former looks *from* the embracing national economy—at least in many of its inquiries—toward the enterprise as an institution and toward the individual enterprises, with their leaders, tools, spirit, etc., as agents of economic change—interest being focused on their effects upon the national economy. In substantial reverse, the business historian's special concern *is* the enterprise, very often the particular enterprise, with all that belongs in its orbit, but from that viewpoint he looks at the embracing national economy. At all events, German scholars have found advantages in working, as it were, from both ends of this relationship.

Again, I have paid attention to something more than published documents of particular characteristics. I have been interested in the whole intellectual movement that has promoted and sustained business history in Germany. Accordingly I have been led to consider—at least briefly—its origins in German historiography; activities in the development of research institutes and the like, whether publications have resulted or not; and the efforts to collect and preserve the materials essential for the study of business history.²

Actually I have ventured to cast my net a little more broadly than

² The reader should guard against a misunderstanding. This survey aims at revealing the outlines of a scientific development, and is not meant to be a bibliography or to supplement the bibliographies already existing in the field. Titles of books are given only by way of examples, and it is not claimed that always the most important title has been selected to illustrate a point. Completeness has been attempted only with regard to the early publications in each field.

Bibliographical references are to *H. Corsten, *Hundert Jahre Deutscher Wirtschaft in Fest-und Denkschriften, eine Bibliographie. Kölner Bibliographische Arbeiten* herausgegeben von H. Corsten und E. Walb, II (Köln, 1937); and Bücherei des Reichsbankdirektoriums, **Katalog der Fest-und Denkschriften wirtschaftlicher Betriebe* (Dr. Hjalmar Schacht Sammlung), Stand vom 1. Dezember 1936 (Berlin, 1936). This item will be quoted as Schacht Collection.

The asterisk before certain book titles designates items that are to be found in the Harvard libraries—the Business School Library containing the great majority. The many stars that will be found below testify to the excellence of the collections. Biographical data are taken from *Wer ist's? Zeitgenossenlexikon* (4th ed., Leipzig, 1909) or from *Kürschner's Deutscher Gelehrtenkalender* (7th ed., Berlin, 1950).

would be required to survey *German* business history. I have taken a look at corresponding phases of intellectual life in other countries, at least to the extent of comparing their published literature in our field with that which has appeared in Germany.

I

In Germany, just as in the United States, most firm histories have emanated from the firms themselves and—as already suggested—have been issued to celebrate anniversaries or special events, such as the opening of a new plant or the building of the 2,000th locomotive. As far as our present knowledge goes, Germany seems to have been the first country to produce an historical work of this character; and pride in a great achievement was probably the motive that prompted its compilation. That very first firm history, written as early as 1825, was the anonymously published *Geschichte und Feyer des ersten Jahrhunderts des Eisenwerkes Lauchhammer*³ (privately printed, Dresden, 1825), the author of which was Johann Friedrich Trautscholdt. At the time of this firm's hundredth anniversary, which occasioned the publication of the history of the iron work *Lauchhammer* in Saxony, Trautscholdt was its *Oberfactor*, i.e., manager, the enterprise being owned by Count Detlev Carl von Einsiedel (1773-1861). The latter was a very able administrator both in the public and industrial fields. (During the Congress of Vienna he had also played a noteworthy diplomatic role, and he later rose to become a minister.⁴) That is to say, the first business history which we possess deals with and emanated from one of those enterprises which were built up and owned by

³ Years ago I used the copy in the erstwhile Staatsbibliothek in Berlin. One is now known to exist in the Sächsische Landesbibliothek in Dresden, and a photostat of it has been secured by Baker Library.

What an achievement this publication was can be gauged through comparison with an item published a few years earlier to celebrate an anniversary of the Hamburger Bank, namely, **Der zweyten Säcular-Feyer der Hamburger Bank am 22. Februar 1819 gewidmet* (Hamburg, gedruckt bei Johann August Meissner [1819]). This item is a poem in the contemporary pompous style. Obviously nobody hit on the idea to celebrate the event by writing the bank's most interesting history.

⁴ According to information received from Dr. Wolfgang Zorn, of Augsburg, the old editions of *Meyers Konversations-Lexikon* report that in 1830 he was forced out among other reasons because he took too much interest in his private affairs ("zu grosse Wahrnehmung seiner Privatinteressen"). See also Karl von Weber, "Detlev Graf von Einsiedel, Königl. Sächsischer Cabinets-Minister" in *Archiv für die Sächsische Geschichte*, I (1863), 58 ff., 129 ff., especially 63, 64, 185 ff.

aristocrats, as was typical of the eighteenth century and especially of the eighteenth-century European iron industry.

The author Trautscholdt, on the other hand, was the first of a long line of company officials who, ever since that time, have more or less successfully tried their hands in writing business history. But, in contrast to most performances of his successors, his is a remarkably good one, especially when one considers that there were no examples from which Trautscholdt could have learned. And yet, he asked and answered questions which the modern business historian appreciates. For example, he informs us about the beginnings of the enterprise, about the reason why the work was started, about its expansion (in fact, both by vertical and horizontal integration), and about primary and derivative innovations made in the plants and the problems involved. We learn the names of the owner-entrepreneurs and when one succeeded another, each of them is characterized so that one may see a personality at work. Last but not least, very telling figures on the consumption of ore and fuel, output, some prices, and costs are given. Broken down as these figures are by averages per period, we can clearly discern that in a hundred years no revolutionary change in technology was achieved in the field of semifinished goods; the production function obviously did not change. The cost figures are the least revealing, but we learn the percentage spent for labor.

At the time of its publication this book of Trautscholdt's must have made a certain impression outside the circle concerned, for a reliable and extensive review article on the short book was published in the 1825 volume of an unidentified *Archiv*.⁵ This review article has special interest for the business historian. The editor of the periodical, feeling somewhat apologetic for bringing material of this character to the attention of his readers, accompanied it with an introduction which contains what is *de facto* the earliest-known program for business-historical research: "I wished we had," so the editor comments, "histories of other important industrial enterprises. They would serve as an inspiration and would benefit the country. . . . It is meritorious to mention and to present as examples of useful citizens those men who have developed industry to the best of their endeavors and thereby served their country."⁶

⁵ Pages 489-505. A microfilm is in Baker Library, Harvard University.

⁶ *Ibid.*, 489. The passage reads in the original: "Möchten wir doch auch von andern wichtigen Unternehmungen im Gewerbefache die Geschichte haben! Sie

Unfortunately these auspicious beginnings were not followed up. For the 1830's through the 1870's the bibliographies show only a very few examples of firm histories, such as *[Marcus Niebuhr], *Geschichte der Königlichen Bank in Berlin von der Gründung derselben bis zum Ende des Jahres 1845* (Berlin, 1848); Gustav Werner, *Die Papierfabrik zum Bruderhaus [in Dettingen an der Erms] und ihre Eröffnung* (Reutlingen, 1851); Ludwig Wachler, *Geschichte des ersten Jahrhunderts der Königlichen Eisenhütten-Werke in Malapane vom Jahre 1755 bis 1855* (Glogau, 1856); *G. Kolb, *Geschichte der Königlichen Procellanmanufaktur zu Berlin* (Berlin, 1863); or the series of articles entitled "Dinnendahl, ein Beitrag zur Geschichte der Industrie im Ruhrthale" in the *Essener Zeitung* for 1863 (Nos. 1-5).⁷

Marcus Niebuhr's *Geschichte der Königlichen Bank in Berlin*, probably the second German firm history, deals with a public enterprise.⁸ This is by itself a noteworthy fact, especially since there are, among the above-cited first six, two other histories of public enterprises, the ones written by Wachler on the Royal iron works and by Kolb on the Royal china manufacture. On the motives prompting Niebuhr's book we are informed in its preface written by the then minister of finance, Christian von Rother, who presided over the bank. As Rother, an outstanding Prussian government official, explained, soon after having taken the first steps toward strengthening the bank, weak ever since the Napoleonic Wars, he had become aware of the necessity of writing "finis" to the past through an authoritative and frank presentation of the bank's history, at the same time making its achievements known and letting its errors serve as a warning for the future. In the same vein, the author, a Prussian civil servant, elaborated on these ideas in the first sentences of the introduction:

The specific conditions of the Prussian Bank have for a long time made it

dient zur Aufmunterung und begründet des Landes Segen! . . . [Es] ist doch schon verdienstlich, Männer zu erwähnen und hier als Beispiele nützlicher Staatsbürger aufzustellen, die sich nach Kräften um das Gewerbesesen und durch dieses um das ganze Vaterland verdient gemacht haben."

⁷ Corsten, *op. cit.*, nos. 1975, 1434, 246, 436. Wachler's book is not included in Corsten's bibliography. It is not accessible to me, but, as far as I remember, the author was a Prussian mining official who took pride in an achievement. The name might indicate that he was a son of the renowned Breslau historian, Ludwig Wachler (1767-1838).

⁸ There is a *second edition of this item, one of 1854, in which Rother's preface is omitted and the documentary section shortened.

necessary to keep secret its status and its history. The necessity . . . under the protection of a state guaranty to make good from current income a great deficit could not be made public when the bank had yet to build up the funds for such a big operation, and when at the same time it had to be preserved for the benefit of the country. Had it made known its condition, it would have destroyed the very basis of its existence, its credit. After this situation has come to an end and the deficit is . . . covered, the need for secrecy has ceased. To the contrary, it is now desirable for the bank to work to the greatest possible extent under the eyes of the public, which circumstance can only enhance its credit.

It is hardly necessary to comment on these sentences, but one should keep them in mind when looking for the reasons why Kolb and Wachler, also Prussian government officials, wrote the histories of other public enterprises, the ones which they administered. They seem to have been guided exclusively by their interest in the subject and by pride in the achievement.

Up to the 1880's, as indicated, firm histories remained very rare. In that decade, however, the picture began to change: long-established banks and publishers seem to have been the first to see the value of informing the public about their experiences. Among the first banks, if not actually the first, to have their histories written in that decade were the Bremer Bank, the Leipziger Bank (which later failed ignominiously), the Ostpreussische Landschaft in Königsberg, the Landrentenbank im Königreich Sachsen, the Deutsche Hypothekenbank in Meiningen, the Bayerische Hypotheken und Wechselbank, the Preussische Hypotheken-Versicherungs Aktien Gesellschaft in Berlin, and the banking house of F. F. Fetschow & Co in Berlin. That is to say, out of the presumably first eight banks to publish their histories, five were mortgage banks, two commercial banks, while one was a private banking house. On the other hand, the presumably first three publishers to put their histories before the public were the very reputable houses of Justus Perthes in Gotha, Bernhard Tauchnitz in Leipzig, and Ernst Siegfried Mittler & Sohn in Berlin.

In the 1890's and 1900's the writing of firm history spread, and industrial enterprises were, at that time, beginning to take an interest in having their past put before the public. The items are printed and made up according to the taste of the time—which is not much appreciated today. Some samples are in Baker Library, such as **Fünfund-siezig Jahre des Hauses J. G. Schelter & Giesecke* [type founders] in Leipzig (p. p., Leipzig, 1894) and **Zur Feier des 25jährigen Bestehens der Gelsenkirchener Bergwerks A. G.* (p. p., Düsseldorf, 1898).

The quality of the pre-World War I items was, of course, not high, on the average. A contemporary who knew the literature, Oskar Stillich,⁹ leveled the following criticism against those publications: although they were informative they were one-sided because the authors were forced to look through rose-colored glasses. But even worse, the material included in the books was not obtained by scholarly methods, nor were the volumes meant to be scholarly performances. Especially unsatisfactory were the statistics presented; they were practically always average figures for long periods. Nevertheless, even if we disregard for the moment the performances of the pioneers who led in putting the writing of firm history on a scientific level and who will be discussed in detail forthwith, there existed already in the 1900's some very creditable achievements in the field. What was possible in the realm of industrial firm history can be seen from *Paul Neubaur, *Heinrich Lanz. Fünfzig Jahre des Wirkens in Landwirtschaft und Industrie* (Berlin [1909]) and even more from the remarkable four volumes **Geschichte der Bergwerksgesellschaft Georg v. Giesche's Erben, Festschrift zum zweihundertjährigen Jubiläum der Gesellschaft am 22. November 1904* (p. p., Breslau, 1904). The general history of the latter firm was written by a state archivist, the constitutional and administrative history by a librarian, and the history of the properties by a mining official, with lists of shareholders and genealogical tables being added as the fourth volume. On the other hand, the best bank histories written in Germany prior to 1914 were *Kurt Moriz-Eichborn's (Kurt von Eichborn's) *Das Soll und Haben von Eichborn & Co in 175 Jahren . . .* (Breslau, 1903), and the *Geschichte des Bankhauses Gebrüder Schickler* by Lenz and Unholtz to be cited later in another context.¹⁰ When World War I broke out, Germany possessed no less than several hundred firm histories.

It is owing to the merit of about four men that the road was opened which led to a more satisfactory writing of company histories. Their leadership had two aspects: the awakening of a strictly scientific interest in the data of business history and the provision of a few good firm histories which could serve as examples for authors less able to

⁹ About Stillich, see below page 20. The quotation is in the preface of vol. I of his series to be cited on that page too. See also the similar criticism of another contemporary, Bruno Kuske, in *Zeitschrift für die Gesamten Staatswissenschaften*, LXIX (1913), 278 n.

¹⁰ See page 24.

find the right way for themselves. Thereby they made it possible to narrow the gap between the earlier good performances, rare as they were, and the low-class bulk. The outstanding landmark for such progress as was potential and in the making is *Richard Ehrenberg's book *Die Unternehmungen der Brüder Siemens* (Jena, 1906). Ehrenberg was one of the early and influential exponents of German scientific firm history; the others were Conrad Matschoss, Franz Maria Feldhaus, and Wilhelm Berdrow.

Richard Ehrenberg (1857-1922) started his career in the 1880's as an historical economist. His early research made him familiar with business documents, such as the oldest Hamburg price lists, and his very first publications indicate an interest in business activities as such. This interest became far greater than was usual for scholars of his time, and before long he became active in the then still very young science of business administration (*Privatwirtschaftslehre*). In consequence of his research and experience, Ehrenberg grew more and more dissatisfied with contemporary economics, both with the deductive classical presentation which was then still common and with that developed by the younger historical school. But his ideas crystallized only in 1899 after having been appointed professor of economics at the University of Rostock, where he became the custodian of the papers of Heinrich von Thünen (1783-1850), these papers having been given to the university by the latter's grandson. Thünen's papers showed Ehrenberg that the economist can use in his research data emanating from individual industrial, commercial, and agricultural enterprises, a procedure first developed by that economist and agronomist who was in fact the greatest of the early German economic theorists. Influenced by Thünen's method, Ehrenberg conceived the idea of putting economics on a new and more exact methodological basis by classifying and *comparing* data as were to be found in business accounts, family budgets, and budgets of public agencies, especially in the first-named accounts. Such data were to be supplemented by interviews, business correspondence, and other business documents, as well as by material from traditional sources. That Ehrenberg had a rather naive confidence in the objectivity and reliability of accounting data may be mentioned in passing, but, in view of the prevailing belief in the necessity of secrecy, he had no illusions about the difficulty of getting at business sources. Data gleaned relative to one enterprise, household, or public agency were to be compared with similar data emanating from other, corresponding organi-

zations; and data gained in one unit for one period with data of the same unit in others.

Ehrenberg's greatness lay in his instinct for scientific problems, in his ability to ask questions. He was not good at formulating his ideas or at generalizing, and he did not bring out clearly enough that he really aimed at measuring economic phenomena and processes with the help of exact data emanating from the sources cited above. This then was Ehrenberg's program in his capacity as an economist. He wrote it down in 1903-1904 and published it in the first issue of a new periodical tellingly called by him **Thünenarchiv, Archiv für Exakte Wirtschaftsforschung*. The periodical was established to cultivate this kind of research and first appeared in 1905.¹¹

An economist conceiving such a program and at the same time having strong leanings toward economic history is bound to arrive at business history, as in fact Ehrenberg did. Already the first issues of the new periodical contained numerous articles, written mostly by Ehrenberg himself, which belong in that field. He investigated the true motives of businessmen, for example, and discovered that enterprises developed an interest of their own, distinct from that of their owners, a phenomenon comparable to the *raison d'état*.¹² Another article of his dealt historically with the hours of work in commercial enterprises.¹³ In one, based on unprinted material relating to the Siemens concern, he investigated the relationship between the inventor and innovator Werner von Siemens and his plant manager and partner Halske, an ingenious craftsman.¹⁴ But most remarkable is an article which reports on and analyzes the recollections of a worker employed for years in an Osnabrück ironwork; in the second half of the paper Ehrenberg checks the story on the basis of the reports of that corporation and other material, a paper which is probably unique in its method.¹⁵ This is certainly not the place to review the content

¹¹ Baker Library possesses Ehrenberg's copy of the *Thünenarchiv*, a copy with blank leaves interspersed, containing numerous handwritten notes by Ehrenberg. The fact that the program was written in 1903/04 is taken from those notes. For the program, see vol. I (1905/06), 10-15, 23; and for further programmatic discussions, vol. IV, no. 1 (1912), 4 ff. Vol. IX, no. 4 (1922) contains on 429 ff. an obituary, and on 464 ff. a bibliography of Ehrenberg's writings.

¹² *Ibid.*, I, 279 ff.

¹³ *Ibid.*, I, 454 ff., "Arbeitszeit der Kontore."

¹⁴ *Ibid.*, I, 38 ff.

¹⁵ *Ibid.*, I, 320 ff., "Der Gesichtskreis eines deutschen Fabrikarbeiters."

of the *Thünenarchiv* during the whole of its existence, but from what has been shown it must have become clear that Ehrenberg, after about 1903, was working in the field of business history. His efforts found their first widely visible expression in his study of the Siemens brothers cited above.

When after so many years the student of today pores over Ehrenberg's own copy of the early volumes of the *Thünenarchiv*¹⁶ and deciphers his handwritten notes on the blank leaves and on loose sheets lying between the pages, he is amazed by the fruitfulness of the approach and at the same time ashamed that this great scholar, whose gifts have not often been matched among historians, was so little recognized by his contemporaries and has been so much forgotten by posterity. To be sure, failure was partly his fault: he was unable to formulate his methodological ideas clearly, precisely, and in consonance with *geisteswissenschaftliche* logic. The gold which Ehrenberg turned up remained embedded in much gravel. Again, in his lifetime, his influence was weakened by ill-temper and tactlessness, as when his bitter feelings found expression in a number of polemical articles. Among the latter, those involved in his controversy with Schmoller are especially important for our purposes. The position taken by Schmoller—his lack of sympathy for Ehrenberg's approach—seems to disqualify this great economic historian as an ancestor of business history. Only indirectly did Schmoller contribute to that branch of history, namely, by awakening an interest among scholars in the enterprise as an economic institution and as an historical phenomenon. The research problems posed by the individual enterprise, its functioning and its history, did not attract him; he was too deeply rooted in the great historical tradition of Prussian civil service to view the modern businessman with real understanding.¹⁷

¹⁶ The later volumes deal increasingly with agriculture and contain little that is of interest in the present context. One of those items is Erich Seemann's "Aufgaben und Lage des Schiffskapitäns in früherer Zeit und in der Gegenwart" in vol. VI (1915), 463 ff.

¹⁷ Once Schmoller is mentioned in this context at all, one has an even greater obligation to point to Werner Sombart and Max Weber. Sombart's **Der Moderne Kapitalismus* and **Die Juden und das Wirtschaftsleben* (regardless of well-known shortcomings) were and remain much more important for the business historian than Schmoller's **Grundriss*, while Max Weber's **Protestant Ethics and the Spirit of Capitalism* is an indispensable basis for the student of the businessman's mind, by reason both of its method and its content. But, as in the case of Schmoller, one cannot claim these scholars as ancestors of business history.

The second of the pioneers of German scholarly business history was Conrad Matschoss (1871-1942). He entered the field by a very different road. Matschoss, an engineer, was all his life close to the association of German engineers (the *Verein deutscher Ingenieure*) of which he became a director in 1916. From 1924 on he edited its *Zeitschrift*, which possessed a high reputation. Moreover he was a professor of the history of technology at the Charlottenburg Institute of Technology and possessed a coveted honorary engineering degree. Early in his life Matschoss had taken an interest in the history of technology and first became known through a work of two volumes on the history of the steam engine (**Die Entwicklung der Dampfmaschine* [Berlin, 1908]) which contains much material of the kind which interests the business historian. Probably under his influence, the 1909 meeting of the association of German engineers decided to issue a periodical devoted to the history of technology; and thus was published, from 1909 on, under Matschoss' editorship the **Beiträge zur Geschichte der Technik und Industrie, Jahrbuch des Vereins deutscher Ingenieure*. The programmatic preface of the first volume, written by Matschoss, is rather thin and contains nothing to interest the business historian. He emphasized the importance of an historical treatment of technology, claimed—undoubtedly correctly—that lack of pertinent studies was hampering the historian and especially the economic historian, and promised, if possible, to obtain autobiographical material—no word that, according to its title, the periodical was to deal not only with the history of technology but also with the history of industry.¹⁸

But even without a conscious program Matschoss was immediately drawn into business history, for in the era of capitalism the history of technology and the history of the firms which do so much to develop technology cannot be separated. Thus the early volumes of the *Beiträge* are full of firm and entrepreneurial history: Vol. I (1909) contains a paper on Adolf Knaudt, the founder of the puddling and rolling mill of Schulz, Knaudt & Co, and autobiographical notes of Ernst Körting, "Mein Lebenslauf als Ingenieur und Geschäftsmann;" in Vol. II Matschoss published a "Geschichte der Firma Gebrüder Sulzer in Winterthur und Ludwigshafen a. Rh." and the paper of J. Reichert, "Geschichte der Gutehoffnungshütte in Oberhausen (Rheinland);" in Vol. III (1911) can be found Ludwig Beck's "Die Einführung des

¹⁸ It may be mentioned in passing that in the preface to vol. XXII (1933) Matschoss stressed the importance of the creative personality in the field.

englischen Flammofenfrischens [puddling] durch Heinrich Wilhelm Remy & Co" and a paper of H. W. Dickinson on "John Wilkinson," the English ironmaster who became so important for Germany's early industrial development; and so on through later volumes. It is, of course, impossible to analyze every issue; suffice it to point to the very important article in Vol. X (1920) by Matschoss on "Friedrich Harkort, der grosse deutsche Industriebegründer und Volkserzieher," an article in which the then recently rediscovered business papers of Harkort's first enterprise were used. To be sure, in the 1920's the periodical cultivated the history of industries more than that of firms and in the 1930's it became more and more strictly specialized on the history of technology in a rather narrow sense, but the early volumes contain remarkable contributions to business history. All of them are based on primary sources and especially firm records; but of course the range of firms treated is limited to such as were leading in the field of mechanical technology, and the emphasis is on their technical achievements.

Parallel with Matschoss' activities as an editor and contributor to his own periodical went the composition of high-class entrepreneurial and firm histories. At least eleven such studies can be credited to his pen—of which the names of the companies examined and the dates of the issuance of the volumes are as follows: *Gasmotorenfabrik Deutz (1909); *A. E. G. [i.e., Allgemeine Electricitäts Gesellschaft] (1909); *Gebrüder Sulzer (1910); *Maschinenfabrik R. Wolf (1912); *Krupp (1912); Maschinenfabrik Nürnberg (1913); *Demag [i.e., Deutsche Maschinen Aktien Gesellschaft] (1919); *Donnersmarchhütte (1922); Ludwig Loewe & Co, A. G. (1929); Berliner Elektricitätswerke (1934); *Wandrerwerke (1935), all being works of importance. Moreover, he wrote biographies of the following industrialists: Franz Dinnendahl (1903), *Werner von Siemens (1916), *Friedrich Harkort (1920), *August Thyssen (1921), and *Robert Bosch (1931). Last but not least, Matschoss edited a biographical handbook entitled, **Männer der Technik, ein biographisches Handbuch, herausgegeben im Auftrage des Vereins deutscher Ingenieure* (Berlin, 1925).¹⁹ Such a work was

¹⁹ This handbook was bitterly attacked and criticized because of alleged unreliability and superficiality by Franz Maria Feldhaus in the pamphlet "Offener Brief an Herrn Dr.-Ing. ehr. Conrad Matschoss, Professor für Geschichte der Technik an der Technischen Hochschule zu Berlin-Charlottenburg, über sein Buch 'Männer der Technik,'" Verlag des Vereins Deutscher Ingenieure, Berlin 1925 (Eberswalde, 1925). But the articles on industrialists, which interest us, were not under attack. The two men seem to have had their private feud.

desirable because the exponents of technology were badly neglected in the existing biographical sources. As in the case of the *Beiträge*, the presentation of business leaders' biographies was not expressly part of the program, but in fact the handbook contains biographical sketches of numerous businessmen who had been, besides business leaders, also inventors or innovators in applied technology. In fact this handbook is still the best biographical source for entrepreneurs of that description for Germany before 1925.

Franz Maria Feldhaus' importance for the development of German firm history cannot be compared with that of Matschoss'; and yet, he made some contribution. Like Matschoss, Feldhaus was an engineer (born in 1874); like the latter he took an interest in and devoted his life to the history of technology; and like his rival, only to a much smaller extent, he was drawn into participating in the writing of firm histories. Four items on which he participated are on record²⁰ and deal with the firms of Mannesmannröhren Werke (1912), *Bopp & Reuther (1922), Severin Heusch, Aachen (1924), and Staedtler, Nürnberg (1937). Much more than Matschoss, Feldhaus remained the historian of technology even in writing firm history. His method is to show the technical achievement of the firm with which he deals in the broad stream of technological development, but the other business-historical aspects are neglected.

When we turn to Wilhelm Berdrow (born 1867), we first encounter a man who has the status of a specialized business historian.²¹ Berdrow, after a good high school education, received a technical training (like Matschoss and Feldhaus) and worked in several factories. But in the 1890's he became a free-lance writer retaining that status until 1909 when he entered the service of the Krupps in Essen. Heading the Krupp archive he devoted the rest of his life to the history of the firm of Krupp, whose liberal backing he had, and to the biographies of its

²⁰ See Corsten, *op. cit.*, nos. 142, 476, 737, 1096a. The first item is in the John Crerar Library, Chicago, and the fourth in the New York Public Library and that of the Smithsonian Institution. The third does not seem to exist in America. Feldhaus also wrote the biography of a manufacturer *Carl Bamberg. *Ein Rückblick auf sein Wirken und auf die Feinmechanik*, ed. by the Askania-Werke A. G. Bamberg-Werke (Berlin-Friedenau, 1929).

²¹ The following information on Wilhelm Berdrow, who is still living, was received by the Seminar für Wirtschaftsgeschichte und Wirtschaftsraumlehre der Universität Köln from Herr Eduard Meyer, Essen-Hügel, and transmitted through Dr. Wolfgang Zorn. The assistance has been appreciated.

two great figures, Friedrich and Alfred Krupp. The value of Berdrow's publications lies in his close familiarity with the primary source materials; in fact, he edited valuable collections of letters and business documents emanating from the firm and its leaders. His contribution is a permanent one, although only on a special subject, and for decades to come scholars will have to use it.

The pioneers were still active when members of a later generation started developing the ideas of the former. Important among them was Bruno Kuske (born 1876). He started his career as a *Privatdozent* at the *Handelshochschule* of Cologne, which has since become a part of Cologne University. He remained connected with the school all his life until, in 1950, he resigned from the latter's faculty, a renowned professor and economic historian. When Kuske was a man about 35 years of age, it fell to his task to devise an historical course directed to the educating of future business leaders. No economic historian had been confronted with a job of this kind before,²² and therefore Kuske reported on his endeavors in a paper "Wirtschaftsgeschichte an Handelshochschulen" in *Zeitschrift für die Gesamten Staatswissenschaften*.²³ His program in its entirety is of no interest in the present context, but it is noteworthy that, given the intellectual climate of his time, he did arrive at the teaching both of firm and entrepreneurial history. To be sure, he approached both subjects very cautiously (today one would say: much too cautiously), although one cannot decide whether it was because of their newness or in consideration of the "old fogies" of the time. (Interestingly enough, the editor of the journal went so far as to apologize in a footnote for having accepted this [as it appears today, most inspiring] paper for the purpose of starting a discussion.) Here is what Kuske had to say: In dealing with the various lines of business before students of business administration, the economic historian must stress changes in technology and in the various types of enterprises. In so doing he "could [even] go so far as to present important individual enterprises in the fields of industry, mining, transportation, and banking and as to characterize [critically] the incentives back of their growth, showing both errors and achievements." And in a footnote Kuske added that the in-

²² In fact, there were no specialized economic historians in Germany at that time, only historical economists and historians interested in some aspects of the economic life of the past, especially the Middle Ages.

²³ See the *Zeitschrift*, LXIX (1913).

creasing inclination of enterprises to have their histories written up to celebrate some anniversary or other event facilitated the execution of that program.²⁴ So much for firm history.

To the teaching of entrepreneurial history Kuske came by a different route: Economic history, so he stated, could be of help in developing the will and the personality of the future business leader by presenting the lives of outstanding businessmen of the past. Economic development was thereby, so to speak, focused on individuals and the personal element in economic development brought to light. Kuske wanted to show the psychological traits needed by men to become successful business leaders and the logic immanent in the activities of businessmen, i.e., how one action was the logical outcome of an earlier one. He wanted to point to personal qualities of business leaders, to their way of dealing with other men, and to behavior patterns which brought to creative entrepreneurs their ultimate success. And again in a footnote Kuske pointed to the beginnings of interest in biographical studies of business leaders and to the plan of what we possess today as the series called **Rheinisch-Westfälische Wirtschaftsbiographien*.²⁵ Of course, Kuske was aware of the limitations which the social environment imposed on the freedom of the individual businessman, and he had in mind in this connection especially the influence of the business cycle.

Five years younger than Kuske and like the latter connected with Cologne University (although only temporarily) was Walter Däbritz. Däbritz (born 1881) who is at present at the helm of the *Rheinisch-Westfälische Institut für Praktische Wirtschaftsforschung* (Rhenish-Westfalian Institute for Applied Economic Research) in Essen was in his younger years very active in writing scholarly firm histories.²⁶ Outstanding are those on the *Essener Creditanstalt (1922), the *Discontogesellschaft (1931), the *Metallgesellschaft, Frankfurt (1931), the *Bochumer Verein für Bergbau und Gussstahlfabrikation (1934), the *Hanomag [i.e., Hannoversche Maschinen Aktien Gesellschaft] (1935) and the *Th. Goldschmidt A. G. (1937). His early publication *Die Finanzgeschichte der Kruppschen Gussstahlfabrik unter*

²⁴ Kuske's program seems similar to that of Stillich, to be noted shortly: see below, page 20.

²⁵ For this item see below page 49; and for the preceding, Kuske's paper, especially pages 267, 277, 278, 280, 281.

²⁶ See *Kürschners Deutscher Gelehrtenkalender* (7th ed., Berlin, 1950).

ihrem Begründer Friedrich Krupp, Beiträge zur Geschichte der Stadt und Stift Essen, No. 41 (Essen, 1923) is a contribution to a much neglected field, the financial history of industrial enterprises. Däbritz was the first German who was admitted as a lecturer at a university on the basis of his achievements in the field of business history. He became a *Privatdozent* in Cologne in 1927 and was a *Honorarprofessor* at that university from 1938 through 1945. This rise is distinctively different from that of Ehrenberg who was an established professor of economics when he took an interest in business history, or that of Matschoss whose academic position rested on his achievements in the history of technology, or that of Kuske who in the course of a regular academic career held a teaching post when attracted to firm history because of its didactic value.

II

Except for a few special cases scientific firm history must by necessity be sponsored, if not paid for, by the firms to be treated. In Germany some such histories have been compiled for internal use only (a procedure which has been adopted also in the United States, a case in point being the history of the Dennison Manufacturing Company of Framingham, Massachusetts). It is known, for example, that the Vereinigte Stahlwerke promoted the writing of and printed a description and history of every mine which the concern possessed. Almost forty volumes were once in existence, and one wonders what has happened during and after the war to this invaluable source for business history. But the vast majority of firm-sponsored firm histories, many of which are mere brochures, are, of course, written for public consumption, and it seems that their dissemination "pays," if you please, through the accretion of prestige and the improvement of public relations. Otherwise one could not explain that certain firms over the years have turned out an ever greater number of such publications. This statement holds true not only for gigantic enterprises, but also for relatively smaller ones, although the cost in many cases of the latter class must have been financially burdensome. Here are a few examples of multiple publication; they could easily be increased severalfold:

	Number of identified publications
I. G. Farbenindustrie and its original constituents	14
Hamburg-Amerika Linie	13

A. E. G.	8
Demag	8
Borsig	7
Daimler-Benz	5
Osram	4
Opel	3
Berliner Maschinenfabrik A.G., erstwhile L. Schwartzkopf	3
Eichborn & Companie	3
J. H. Bachmann	2

Some histories of German firms were put out in English—presumably in addition to the original German versions. Examples are a history of the Gustav Boehm Toilettenseifen- und Parfümeriefabrik in Offenbach am Main (1905),²⁷ Feldhaus' previously cited item on the Mannesmannröhren-Werke (1912); one history of the Ludw. Loewe & Co Aktien Gesellschaft, entitled *Guide through our Works* (n.d.); and one by the *Demag (Deutsche Maschinenfabrik A. G.) of 1913.²⁸ This practice survived both world wars. Recently there came to hand the publication of a Bremen forwarding agent *175th Anniversary of J. H. Bachmann, *Bremen, 1775-1950* (p. p., Bremen, 1950).²⁹ The Hamburg-America line issued one of its histories in French: Paul Bachmann, *La Compagnie hambourgeoise de navigation 'Hamburg-Amerika Linie'* (1902); and there is also a history of a German firm written in Spanish, *A. Held, Bremen-Colombia* (1937).³⁰ The publication of histories of German firms in foreign languages must be considered a rare though established practice, while that of issuing firm histories repeatedly, whenever an opportunity seems propitious, is very widespread.

On the basis of the sample of German firm histories available in the Harvard libraries, an attempt has been made to work out a classification. At the bottom stand the brochures of 25 to 60 pages on the firms in question. Examples available in Baker Library are *Emil Vogel, *Die Entwicklung des Eisenhüttenwerks Sorge vom 1. Januar 1894 bis 1. Januar 1919, mit einem geschichtlichen Rückblick auf die Vergangenheit und die Beziehungen zur Gemeinde Sorge i. Harz. Jubiläumsschrift* (p. p., Leipzig, 1919), or to show the simplest possible performance, *Zur

²⁷ Schacht Collection, 86.

²⁸ See Corsten, *op. cit.*, nos. 421, 504.

²⁹ This firm issued an English firm history as early as 1925. It is available in Baker Library. The German edition is cited by Corsten under no. 2793.

³⁰ For the last two items, see *ibid.*, nos. 2615 and 3956a.

50jährigen Gründungsfeier der Firma Fritz Baete, Spediteur, Hannover am 25. Januar 1924 (p. p., Hannover, 1924). This variety offers more or less informative historical sketches rather than worked-out firm histories.

The second type of firm-sponsored histories is more voluminous, but not necessarily more informative. It is characterized by the fact that the history of the enterprise concerned is embedded in or appended to a more or less popular history of the industry (in the widest sense) to which it belongs. Examples are *Franz Lerner, *Diener der Schönheit. Gedenkblätter zum 150jährigen Bestehen des Hauses J. G. Mouson & Co, Frankfurt am Main 1798-1948* (Frankfurt, 1948), and on a more scholarly level: *Heinrich Kelleter, *Geschichte der Familie J. A. Henckels in Verbindung mit einer Geschichte der Solinger Industrie* (Solingen, 1924). Or, as we have seen in the case of Feldhaus' pertinent writings, the history of the enterprise concerned may be appended to a history of that branch of technology which was being or had been developed by the subject of the essay. It may happen that in the narrative of the background the business-historical aspect is minimized to the dismay of the specialist in the field trying to use the item. To this general kind of publications also belong those in which the history of the firm is not appended to a history of the industry of which it is a member nor to the history of the specific branch of technology, but rather to a geographical and cultural sketch of the area in which it is located. Baker Library possesses a good example in *August Lämmle's *Das Breuninger Buch* (p. p., 1931). The first part of this book seems intended to catch the reader's interest by a charming presentation that leads him to a second business-historical section which, in this particular case, is of special worth. It contains an autobiographical sketch by the owner of the firm, Eduard Breuninger, entitled "Mein Lebensgang als Kaufmann."

The third type consists of elaborate monographic firm histories that may run to several hundred pages. They range all the way from journalistic to truly scientific performances—truly scientific regardless of certain typical shortcomings to be discussed later. If one compares a number of earlier and more recent items, it is obvious that the trend is toward more voluminous and scientifically more valuable presentations containing a good deal of interesting material. A very satisfactory item is that by *Hans Schmidt, *Vom Leinen zur Seide. Die Geschichte der Firma C. A. Delius & Söhne, 1722-1925* (Lemgo, 1926), which was developed from a doctoral thesis. One can compare the

previously cited publication celebrating the twenty-fifth anniversary of the Gelsenkirchener Bergwerks A. G. of 1898 with the history of the same firm by *A. Freundt, entitled *Kapital und Arbeit, Gelsenkirchener Bergwerks Aktiengesellschaft (1873-1927)* (p. p., Düsseldorf, 1927), to see that there has been real progress in the field. Some of these recent items are not only informative but excellently printed—some quite impressive in appearance. The volume just cited will serve as an example, while another is *Walter Däbritz's *Bochumer Verein für Bergbau und Gussstahlfabikation in Bochum. Neun Jahrzehnte seiner Geschichte im Rahmen der Wirtschaft des Ruhrbezirks* (Düsseldorf, 1934). These and other publications sometimes contain original engravings or etchings of artistic value.³¹

One can consider as a fourth type the few histories of enterprises which were not paid for by the subject firm. Two classes can here be distinguished: the one, popular presentations of firms which have caught the author's fancy and with which the author (and the publisher) expect to interest a large segment of the reading public; and the other, scholarly or quasi-scholarly items. While not paid for by the firm which is the subject of the study, the latter may in fact sometimes give the volume its official sponsorship. Widely known enterprises like those of the Fuggers and Rothschilds, or modern ones like those of the Krupps and Hugo Stinnes, lend themselves easily to popular treatment. Thus one may cite popular books on the Fuggers such as those by Brandt, Ortner, or Hering.³² On the Rothschilds there has accumulated over the past hundred years such a rich and partly sensational popular literature in several languages that the titles cannot be enumerated here. The same holds true of the popular presentations of the enterprises of the Krupps and Hugo Stinnes, except that the number of publications is not so large. (That there is no clear-cut dividing line between popular biographies of these men and popular presentations of their firms goes without saying; and

³¹ One might also compare the publication of a type foundry of 1894, cited above, page 6, with one of another enterprise in the same line of 1937 to get the right perspective. The latter is *Konrad F. Bauer, *Werden und Wachsen einer deutschen Schriftgiesserei; zum hundertjährigen Bestehen der Bauerschen Giesserei, Frankfurt a. M. 1837-1937* (Frankfurt, 1937).

³² *Otto H. Brandt, *Die Fugger, Geschichte eines deutschen Handelshauses* (Jena, 1928); *Eugen Ortner, *Glück und Macht der Fugger, der Aufstieg der Weber von Augsburg*, 5th ed. (München, 1943), and *Die Weltmacht der Fugger, die Fürsten der Kaufleute* (München, 1941); *Ernst Hering, *Die Fugger* (Leipzig, 1944).

incidentally it is these same personal and firm names which appear also frequently in popular collective biographies.) A recent independent popular volume, relating to a less generally known firm, is *Claus Helbing, *Die Bethmanns, aus der Geschichte eines alten Handelshauses zu Frankfurt am Main* (Wiesbaden, 1948)—from the business-historical point of view a pretty poor performance.

An early example of independent historical research in business undertaken for strictly scientific purposes is provided in the two volumes which Oskar Stillich (born 1872) published before World War I under the title *Nationalökonomische Forschungen auf dem Gebiet der grossindustriellen Unternehmung, Vol. I, *Eisen- und Stahlindustrie* (Berlin, 1904), Vol. II, *Steinkohlenindustrie* (Leipzig, 1906).³³ Stillich's studies are of methodological interest, showing, as they do, what was possible prior to World War I to an independent investigator in our field. Stillich tried to get access to the firms' records. He was unsuccessful, however, and speaks out against German industrialists who, he says, were greatly benefited by the achievements of German scholarship and yet were unwilling to reciprocate by opening their archives to research. He tells us of the toy industry at Sonneberg (Thuringia), for example, where he was refused assistance because it would not bring in money. As to the spirit prevailing in the Ruhr area, he quotes a statement of Louis Baare, then one of the leaders there, before a stockholders' meeting of the *Bochumer Verein für Bergbau und Gussstahlfabrikation*. It was not advisable, so Baare is quoted as saying, to make public detailed figures on the activities of the enterprise. In contrast he would see to it that only a minimum of figures should be divulged.

To be sure, Stillich was permitted to see the plants everywhere; and having no access to primary unprinted sources, he based his studies

³³ Vol. I contains monographs on the Hörder Bergwerks- und Hüttenverein, the Ilseder Hütte und Peiner Walzwerk, the Dortmunder Union, the Phoenix Aktien Gesellschaft, and the Vereinigte Königs- und Laurahütte. Vol. II includes the Bergwerksgesellschaft Hibernia, the Gelsenkirchener Bergwerks A. G., the Kölner Bergwerksverein, the Bergwerks A. G. Konsolidation, the Bergwerksgesellschaft Dahlbusch, and the Königsborn A. G. für Bergbau, Salinen und Solbadbetrieb. For the following presentation, see the prefaces of the volumes.

Similar to Stillich's studies but referring to the eighteenth century and dealing with an entire local industry from the business-historical point of view is *Wilhelm Stieda's book *Die Anfänge der Porzellanfabrikation auf dem Thüringer Walde, Beiträge zur Wirtschaftsgeschichte Thüringens*, I (Jena, 1902).

on printed material pertaining to the industries with which he dealt, on the annual reports of the corporations, on local investigations, and on extensive interviews with men active in the industries and enterprises. He actually found well-informed men willing to provide him with information, company officers who, if not of the first, were at least of the second echelon. On the basis of such sources Stillich tried to establish the main characteristic of each enterprise and then made his presentation of data pivot around the latter, this presentation being strictly monographic, but both historical and descriptive in that framework. He meant to present the history of each selected enterprise, the technical and social environment in which it produced and sold its output, the typical behavior pattern of its administrators, its business experiences, its financial structure and financial results. As representative of the characteristic features of the companies that he discovered, one may cite the following: in the case of the Hörder Verein, its mass production and a typically high-capitalistic spirit; in the case of the Ilseder Hütte, its extraordinary profitability over long periods; in the case of the Dortmund Union, its continuous unprofitability; and in the case of the Phoenix, its consistent policy of decentralization; while the case of the Königs- und Laurahütte, so he thought, was distinguished by capitalistic motivation being kept under a certain check. As to the mines which he treated, he found the distinguishing element in some of them to be an aggressive and expansive spirit, leading to horizontal and vertical integration, while in others he saw a policy of strict specialization. In the former group, he pointed especially to the Gelsenkirchener Bergwerks A. G. which seemingly aimed at controlling the whole Ruhr-coal industry (with Herr Kirdorf as the man back of it all). Finally, he studied in Königsborn an enterprise characterized by the combination of coal and salt mining. This effort by Stillich honors the scholar. That he found that recognition which he deserved, can be doubted. He never attained academic status, but worked in the field of adult education; for the second volume he had to find a new publisher; and, although further volumes were in preparation, they were never published. Apparently it is the old story: pioneering does not pay.

In the same year (1906) in which Stillich's second volume came from the press, Ehrenberg published the *Unternehmungen der Brüder Siemens*, cited above, the outstanding pre-World War I performance both in the whole field of business history and in the group of scholarly productions with which we are now concerned. What had been denied

to Stillich, Ehrenberg succeeded in attaining: access to business papers. As free or independent writers of firm histories, motivated exclusively by scientific interest, these men did not have many successors, however; and only in recent years do we find a rerudescence of comparable writing. Typically the more recent volumes deal usually with enterprises in the historic past and with firms located in Hamburg, one of Germany's centers of overseas trade, with chances to cherish a long and proud tradition of business accomplishment. As to the former, attention is drawn to the study of *Franz von Pollack-Parnau, *Eine Oesterreichisch-Ostindische Handelskompagnie, 1775-1785* (Stuttgart, 1927) and *M. A. H. Fitzler, *Die Handelsgesellschaft Felix von Oldenburg & Co, 1753-1760* (Stuttgart, 1931), published as Nos. XII and XXIII, respectively, of the *Beihefte zur Vierteljahrsschrift für Sozial-und Wirtschaftsgeschichte*. As to the latter, there appeared as early as 1922 Richard Hertz's *Das Hamburger Seehandelshaus J. C. Godeffroy & Sohn, 1766-1879* in the *Veröffentlichungen des Vereins für Hamburgische Geschichte*, Vol. IV, and shortly before the outbreak of World War II two more items on this extinct, once famous firm, namely, *Kurt Schmack, *J. C. Godeffroy & Sohn, Kaufleute zu Hamburg, Leistung und Schicksal eines Welthandelshauses* (Hamburg, 1938) and *Erika Suchan (née Galow), *Die deutsche Wirtschaftstätigkeit in der Südsee vor der ersten Besitzergreifung 1884*, a Berlin doctoral thesis of 1940. Other items of this class are the following: *Percy Ernst Schramm (presently one of Germany's leading economic historians and professor at the University of Göttingen), *Das Hamburgische Handelshaus Wm. O'Swald & Co* (Hamburg, 1939) in the *Forschungen zur Hamburgischen Wirtschafts- und deutschen Außenhandelsgeschichte*, edited by Dr. Ernst Hieke, Vol. I; and finally the book by Hieke himself, *G. L. Gaiser, *Hamburg-Westafrika. 100 Jahre Handel mit Nigeria* (Hamburg, 1949), as Vol. II of the *Veröffentlichungen der Forschungsstelle für Hamburgische Wirtschaftsgeschichte* (obviously the continuation of the former series under a new name). Books on industrial enterprises motivated exclusively by a scholarly interest are *Georg Siemens' *Geschichte des Hauses Siemens*, 3 vols. (München, 1947, 1948, and 1951); *Erich Stenger's *Die Steingutfabrik Damm bei Aschaffenburg, 1827-1884* (Aschaffenburg, 1949); and Friedrich Schomerus, *Geschichte des Jenauer Zeisswerkes 1846-1946* (Stuttgart, 1952).

As a matter of course, generalized criticism must be taken with an appreciation that there are exceptions but, without doing injustice to their authors, one can probably find fault with most German firm

histories for the following shortcomings, all related to focusing excessively on what may catch the public's interest. The reader is informed about the material substratum of the enterprise in question rather than the working of the organization. There is usually too much stress laid on products, plants, buildings, powerful machines and equipment, and on activities in the interest of the working force. In some cases technological achievements are overstressed. Data which are indicative of growth and success are emphasized, but one learns very little about the process of policy determination and about the internal structure and operations of the enterprise concerned. Details as important as changes in the sales organization, methods of purchasing, dividend and promotional policies, changes in accounting procedure, and the like are neglected. Statistics are often badly lacking, especially those which would measure efficiency and, by enabling him to establish ratios, permit the scholar to *analyze* events of the past. If they are given at all, figures are usually of the kind which one finds in reports and balance sheets. On the other hand, the spectacular and sensational element which mars some American firm histories, sponsored by the firms concerned, is equally absent, and so is that thick gravy spiced with "honesty," "parsimony," "service," "patriotism," and "Algerian" concepts, if you please, which all too often smothers that little meat which American firm publications contain. By comparison I should consider the average German firm publication more useful than the average American. This statement indicates that advertising and the public-relations aspect, while at the root of these histories, are not emphasized too much. So far the German authors of even good firm histories have had to consider an educated though not scholarly audience—a fact which is brought out, for example, in the preface of such a good book as *Georg Siemens', just cited, *Geschichte des Hauses Siemens*. But more often than not this necessity lowers the scholarly level of the performance, even where the author in question is obviously able to do a wholly satisfactory job.

But even more detrimental to German business-history writing has been the apparent lack of specially trained, high-class personnel, standing ready to deal with jobs as they come along, i.e., the lack of such men as Däbritz, at least as he was at one period in his life. Such personnel, after having received a good historical training, can be developed only at *Handelshochschulen* (graduate schools of business administration) and must be kept on their staffs permanently; otherwise it is bound to be lost when there is no opportunity for a few

months to make a living in the field. Men of this caliber would certainly be of great value to their academic institutions. For lack of such scholars too many firm histories are still written by inept persons, i.e., persons not specially trained in business history, such as partners and employees, former partners and employees, family members, and journalists with a quick pen. Thus far, general historians of ability or rank rarely have written firm histories, the exceptions including *Friedrich Lenz (co-author), *Die Geschichte des Bankhauses Gebrüder Schickler* (Berlin, 1912) and Karl Alexander von Müller, "Chronik der G. Haindlschen Papierfabriken" in **Hundert Jahre G. Haindlsche Papierfabriken. Eine Gedenkschrift* (p. p., München, 1949). Occasionally we find economic historians in the field, such as Percy Ernst Schramm, already mentioned, and Bruno Kuske, who wrote **100 Jahre Stollwerck-Geschichte 1839-1939* (Leipzig, 1939), i.e., the history of a chocolate factory; or professors of economics, such as *Walter Hoffman, writing *Mansfeld, Gedenkschrift zum 725jährigen Bestehen des Mansfeld Konzerns* (Berlin, 1925), the latter being a very old and actually famous mining enterprise, and *Heinrich Voeleker, the author of *75 Jahre Kalle . . .* (Wiesbaden-Biebrich, 1938).

It was the shortcomings of published firm histories which in the 1930's led to an attempt by concerted effort to place that branch of historiography on a more satisfactory and strictly scientific basis. Behind that attempt was Carl Brinkmann, now professor of economics at the University of Tübingen. In 1940 the committee on economic history of the *Akademie für Deutsches Recht* (which should not be confounded with the *Deutsche Akademie*, a project of which will be noted later) decided to set up organized research on German enterprise. Unhappily, the project never got beyond the stage of discussing the preservation and use of archival sources.³⁴

If Brinkmann's project had matured, the cooperating students might have produced firm histories along the general lines of Professor Gras' "school," for Brinkmann referred in his outline to the latter's work. Since it did not mature, there is in Germany at present no parallel to the American practice of having universities, such as Harvard, Yale, or Northwestern, undertake the writing of a firm history, charging a competent, specialized historian with the task, which the firm in question finances. But there is today a keen awareness at certain German universities—universities that have an active

³⁴ See footnote 72.

interest in economic history—of the importance of scholarly firm histories based on the firms' records and of the value of business records and firm histories for the writing of general economic history.³⁵ For the latter purpose, *faute de mieux*, the German economic historian will have to make intensive use of such firm histories as have been written and will be written in future by journalists, businessmen and their employees (or relatives), and once in awhile by a more or less specialized historian, unless a new effort toward strictly scientific and even specialized firm historiography can be organized. After the destruction which the recent war has wrought, the existing older firm histories have gained greater importance than they ever had. Many of them made use of primary sources which no longer exist, which is especially true of important enterprises located in the former provinces of East Prussia, Silesia, and Pomerania and in general for the whole Eastern Zone of Germany which experienced nationalization. Some such histories have preserved for our use the documentary evidence which they contain.

To be sure, what we possess in the way of firm histories relates typically to successful enterprises although the unsuccessful ones are equally important for the scholar, a statement which does not need elaboration. Under German law the records of bankrupt enterprises are kept by the receivers for a considerable time, and I think that there should be no unsurmountable difficulty in collecting and preserving a representative sample, once that period of retention has passed. At least it is worth the effort to investigate the possibility of preserving such records for historical use, which to my knowledge has not as yet been made.³⁶

Before turning to other matters, I should like to give an over-all appraisal of German writing in the field of business history; and for lack of the judgment of other scholars I venture to present my own view. I do so on the basis of the fact that, while I was living in Germany, I worked on a history of German business leaders and in that connection I, myself, had occasion to read scores of these publications. I have examined others since then. My own conclusion is that, dis-

³⁵ Incidentally, in this country nobody's awareness for the possibilities of putting firm histories to such use was keener than that of Joseph Schumpeter; see *Business Cycles* (New York, 1939), I, 222.

³⁶ To be sure, there is a problem as to how much of such material survived World War II.

regarding the quality of the individual piece, the whole literature taken together is of high value. But it is so only if the student using it approaches it well trained, carrying in his mind distinct and concisely formulated questions. In that case, even the poorest of the items will not disappoint him completely, because it will answer at least some of his questions. Each item will tell him the year in which the enterprise was founded, will give him a rough idea of how it grew, and will state the names of the founders and of the men who developed it. If there was something to boast of he will certainly find it mentioned; and it will be his responsibility to evaluate the boast. Of course, the picture will never be complete, since all (or most) damaging facts will have been suppressed. Moreover, it will also tend to be one-sided in that, as Henrietta Larson correctly pointed out in a private conversation, it will present the institutional rather than the operational aspect. In most publications the student will in reality find much factual information beyond that minimum, and the great number of items that have emanated from rival enterprises will often make possible critical appraisal by means of comparison. Innumerable bits of information are usually provided which gain life by being correlated with each other; and innumerable bits of information from a great number of cognate studies give one an invaluable picture of business development in the country—and also of economic growth. However, if a pointed statement, or rather an exaggeration, is permitted: this literature to be really fruitful must be used by the hundreds of items.

The last statement in turn is bound to lead to the question: Are there really hundreds of German firm histories? What in fact is the number of items available? This question can easily be answered. Corsten's bibliography lists approximately 4,050 numbers of which approximately 2,925 are firm histories.³⁷ The remainder consists of about 125 entrepreneurial biographies and about 1,000 historical

³⁷ To give the exact number of listed items, one would have to examine carefully each page, since, under numerous entries, there are insertions under the letters a, b, c, and d. The result of that procedure would mean very little, since the bibliography is not complete. I myself know a certain number of items which were inadvertently omitted, and if an individual researcher, who is not a bibliographer, hits on such omissions, one must suspect that there are a good many more. In the preparation of the ensuing distribution of the listed items I have tried to catch the insertions, but the appendix of about 100 items is not classified and the class not always certain from the title. Thus the figures will contain small errors.

presentations issued by cooperatives, chambers of commerce, trade associations, cartels and the like, and by governmental and communal agencies engaged in business activities. As is generally known, governments and cities have to a much larger extent carried on business activities in Germany than they have in America, and the material in question actually belongs in a special segment of business history.

The above-mentioned (cir. 2,925) firm histories pure and simple are distributed about as follows:

	Approximate percentage
Finance (commercial, mortgage, and savings banks, stock exchanges, public accountants, mercantile agencies)	19
Foodstuff production (flour mills, creameries, margarine producers, stock yards and packing houses, breweries, distilleries, wineries, producers of sugar, candy, and chocolate, tobacco, cigars and cigarettes)	9.5
Heavy industries (mining, steel)	8.5
Chemicals (heavy and light, paints, oil, rubber, pencil, soap, ancillaries to the textile industry, pharmaceuticals, drug stores)	8.3
Transportation facilities	7
Commercial institutions	5.7
Metal fabricators (including iron construction, ship building, precious metals, and the manufacture of boilers, locomotives, wagons, and type)	5.6
Textiles (including ready-made clothing and hats)	5.5
Machinery producers	4
Utilities	4
Insurance companies	4
Instruments and scientific apparatus manufacture	4
Paper manufacture	2.5
Electro-technical production	2.5
"Steine und Erden," (including granite, marble, mica and other quarries; cement, china, pottery, glass production)	2
Building industry	1.6
Automobiles, bicycles, aircraft production	1.6
Wood-working industries	1.2
Leather, shoes, fur production	1.2
Miscellaneous establishments (restaurants, recreation, agricultural)	2.3
	<hr/> 100.0

Corsten's list is, to be sure, neither complete nor up-to-date, and in studying the above tabulation one should realize and keep in mind that the bibliography excludes the histories of newspapers, printers,

book-dealers, and publishers. They were reserved for special treatment which was to my knowledge never published. Of those items there must be at least several hundred. Moreover, Corsten's bibliography is now fifteen years old. Although wartime conditions cut back severely the publication of such volumes, activity has more recently recommenced. More than a score of newly published German firm histories have come to my attention. Thus the conclusion seems justified that at the present moment the total of German business-historical publications lies in the neighborhood of 5,000 items.

Not even in Germany was this kind of material systematically collected until recently. Eugen Schmalenbach, one of the early and great German figures in the science of business administration, was among the first, if not the first, to see the importance of the material. He was instrumental in having it brought together, as far as possible, in Cologne, so that the Cologne University Library, which has survived the war, is today perhaps the strongest depository of this type of publication in Germany. In the 1930's the library of the Reichsbank in Berlin which then possessed a good many items received Hjalmar Schacht's private collection of business-historical publications and thereafter collected them systematically. Consequently, by 1940, the *Reichsbankdirektorium* owned what was then the largest library of this kind, a catalog of which was published in 1936. It contained about 1,800 German items of the character which would have made them eligible for insertion in Corsten's bibliography, but it also included publications relating to newspapers, publishers, printers, and book-dealers. The library seems to have been destroyed during the war.

In America the library of the Business School of Columbia University acquired in the 1930's a valuable collection of German business-historical material, but to my knowledge that library did not remain active in the field thereafter.³⁸ Baker Library, which had received numerous items more or less accidentally over the years, became strong in the field through the acquisition of the Wallach Collection and seems to be the only American library to take a systematic interest in assembling pertinent German material. I have gained the impression that it possesses about a 5 per-cent sample, heavily

³⁸ The John Crerar Library in Chicago owns a good deal of histories of German industries, but very few German business-historical items. The library has kindly provided Baker Library with a list of its pertinent holdings.

weighted on the side of the more recent and more important publications. Some are in the Widener Library of Harvard University.

III

It seems to be worth while to pause here and to provide some data which will help to give color to the preceding statements relative to the German development. In America an historical sketch of a firm was published as early as 1818, *viz.*, *Letters First Published in the Boston Daily Advertiser in Answer to Certain Inquiries relative to the Middlesex Canal*, by John L. Sullivan, Agent of the Corporation (Boston, 1818). It was the purpose of the sketch to make available to the community ". . . something more of [the canal's] history than is commonly known," and to "shew the magnitude and difficulty of the enterprise." The author, who undoubtedly meant to promote the interest of the corporation by writing this little history, considered it "a useful, if not an entertaining inquiry." Yet it remained a mere sketch. The first genuine American firm history came more than twenty years later, namely, the *History of the Lehigh Coal and Navigation Company* published by order of the Board of Directors (Philadelphia, 1840). The last paragraph of this history, disclosing its purpose, indicates that it was intended to serve in the raising of capital or in bolstering the market price of the company's stock. Not many years elapsed before another firm history was published, as a matter of fact the second one on the Middlesex Canal, namely, Caleb Eddy's *Historical Sketch of the Middlesex Canal with Remarks for the Consideration of the Proprietors* by the Agent of the Corporation (Boston, 1846). Again a practical purpose was back of the history. The Middlesex Canal was then badly hurt by a new railroad and the author tried to induce the "Proprietors" to adopt certain policies and measures. Eddy's "historical sketch," to use his words, was in turn followed by John Pickell, *A New Chapter in the Early Life of Washington in Connection with a Narrative History of the Potomac Company* (New York, 1856). The pattern is beyond doubt. In America canals were the first business concerns which were the subjects of historical treatment, and three of the first four items owed their existence not to genuine historical interest, but to business considerations.

In the same decade in which the last-named book was published, i.e., the 1850's, attention was drawn also to railroad history. In that decade Henry Varnum Poor published in the *American Railroad Jour-*

nal historical sketches of various railroad companies;³⁹ and in 1855 there appeared the first independent railroad history, one on the New York and Erie Railroad by the reputable Eleazar Lord (New York, 1855). From then on there was a slow, but steady, trickle of railroad histories: in the 1860's on the Western Railroad (1863) and the Panama Railroad (1867), in the 1870's on the Erie and the Pennsylvania Railroads (1870 and 1875, respectively),⁴⁰ and in the 1880's on the Crédit Mobilier and the Northern Pacific Railroad (1880 and 1883, respectively). In the 1890's the trickle was becoming a rivulet.

By that time banks had become active in the field, entering it in the late 1870's. This is a significant fact, since, as will be remembered, banks were in Germany also among the first to take an interest in publishing their histories. (In view of the early nationalization of the German railroads, there could be no German counterparts to the American railroad histories just discussed.) The first American bank histories were those on the Suffolk Bank (by Davis Rich Whitney, 1878), the Bank of North America (by Lewis Lawrence, Jr., 1882), the Bank of New York (by Henry W. Domett, 1884), and the Bank of America (anonymous, 1887). More were to follow in the next two decades. In the meantime, in the 1880's, manufacturing enterprises and insurance companies had begun to join the ranks of the early sponsors and issuers of firm histories. As to the former, the years 1885 and 1886 saw the publication of two sketches on the Brush Electric Light Company⁴¹ and of monographs on the Harlan and Hollingsworth Company of Wilmington, Delaware, and on *C. H. Evans. A Century of Brewing*, the latter by George W. Travers (New York, 1886). As to insurance, there appeared in 1883 a *History of the Home Insurance Company*, by Charles J. Martin, and in 1885 one of the *Insurance Company of North America of Philadelphia: the oldest Fire and Marine Insurance Company in America . . .* by Thomas H. Montgomery (Philadelphia, 1885). It is strange that publishers and printers did not become issuers of their histories prior to 1900 and even then only reluctantly, as suggested by the small number of such publications; distributive enterprises were still slower. The oldest

³⁹ See, for example, XXVII (1854), 625 ff. (on the Erie Railroad); 890 ff. (on the Georgia Railroad); XXVIII (1855), 89 ff. (on the Reading Railroad).

⁴⁰ There was published in 1870 also a very thin historical sketch, *History of the Granite Railway Company . . .* (Boston, 1870).

⁴¹ As to these sketches, see Larson, *Guide to Business History*, nos. 822 and 823.

item in the latter area (one of 1898),⁴² entitled *Casper Meier and his Successors . . . Oelrichs & Co.*, actually emanated from a German firm, in fact a famous one; and as to retailers, the earliest that I have come across are items relating, respectively, to Wanamaker (1911) and a Chicago department store (1915).

If one uses the three available bibliographical tools, the Dun & Bradstreet catalog,⁴³ the *Guide to Business History*, by Henrietta M. Larson (Cambridge, 1948), and the Harvard University Graduate School of Business Administration, *Business Biographies and Company Histories* (Baker Library Reference List No. 4, 1948), and if one excludes duplications and adds those non-listed items which I have come to know, one can count about 125 firm histories as published prior to 1916. That year appears to be a reasonable date, corresponding historically to the year 1914 in Europe, as marking the beginnings of the hostilities and the impact of World War I on the two continents, respectively. In other words, the 125 American firm histories in 1915 must be compared with the several hundred German items in 1913. Of the former, about 50 dealt with banks, some 25 with canals, railroads, and transportation enterprises, about 20 each with manufacturing and insurance concerns, while the remaining 10 or so cover all the other business activities, including 2 histories of publishers: Munsey and Harper. Translated into percentages, these figures mean that in 1915 the division of the total was as follows:

	Approximate percentage
Finance	40
Railroads and other transportation	20
Manufacturing and other producing concerns	15
Insurance concerns	15
Miscellaneous	10
	<hr/>
	100

Again on the basis of the three bibliographies above-cited, I would be inclined to estimate that there exist at present about 750 American firm histories, including those of little value, omitted intentionally from the Baker Library list. Assuming that the percentage distribu-

⁴² This item appears erroneously as a bank in the Harvard University Graduate School of Business Administration's bibliography, to be quoted forthwith.

⁴³ A List of Business Histories and Biographies in the Business Library, Dun & Bradstreet, Inc., September 1, 1949.

tion of all company histories is approximately the same as it appears in this Baker Library list, the total would divide itself as follows:

	Approximate percentage
Manufacturing	25
Finance	21
Transportation (including railroads and canals)	21
Insurance	12
Trade	9
Miscellaneous (including public utilities)	12
	<hr/> <u>100</u>

It must be clearly understood, of course, that these are only rough estimates.

IV

The writing of German entrepreneurial biographies developed apart and differently from that of firm histories. Two kinds of such biographies can be distinguished. The one comprises those biographies which were occasioned by anniversaries of various kinds and emanated from the enterprises or the friends or admirers of the business leaders whose lives were being presented. They have certain similarities with the traditional firm histories. The other kind, in contrast, owes its existence to a general or scientific interest in the man treated in the biography in question.

Just as in the case of firm histories, a remarkable item opens the procession, an item which does not fit into the above classification: in 1826 Friedrich von Gentz (1764-1832), the great German publicist and for years the close cooperator of Prince Metternich, for a very high remuneration wrote an article on the Rothschilds for Brockhaus' encyclopedia (*Das Brockhausische Conversationslexicon*) which published it in part.⁴⁴ Gentz was always in need of money. His essay is indicative of a widespread public interest in the spectacular family. Its most important member was treated about a decade later in A. von Treskow's book, *Biographische Notizen über Nathan Meyer Rothschild* (Quedlinburg, 1837), a microfilm of which is now available in Baker Library.

⁴⁴ The article entitled "Biographische Nachrichten über das Haus Rothschild" is accessible in Friedrich von Gentz, **Schriften, ein Denkmal*, edited by Gustav Schlesier (Mannheim, 1838-1840), Part V, 113 ff.

In the following decade there appeared, probably at the request of friends of the deceased, a slim booklet eulogizing the very wealthy Hamburg banker, Salomon Heine, the poet's unbeloved uncle who had died in December, 1844. Entitled **Salomon Heine, Blätter der Würdigung und Erinnerung für seine Freunde und Verehrer . . .* and written by Joseph Mendelssohn, it was published in at least three editions.⁴⁵ The booklet includes a bare outline of Heine's business career and an excerpt from his will which may interest the future student of the German, and especially the German-Jewish, businessman's mind. In order to see these data in the right perspective the reader must know that France had produced prior to 1870 at least twenty-six entrepreneurial biographies, as will be discussed later.

The earliest biography of a German businessman published by his firm at the occasion of an anniversary is **Friedrich Tietz, Ernst Litfass' industrielle und private Wirksamkeit. Zur Feier des 25jährigen Principals- und Bürgerjubiläums nach authentischen Tatsachen dargestellt* (Berlin, 1871).⁴⁶ Ernst Litfass was a Berlin printer and one of the earliest German businessmen to have a feeling for advertising, then in its swaddling clothes; and it is therefore not surprising that the first German entrepreneurial biography emanating from any firm was one pertaining to him. He knew that it had a high advertising value.

Prior to 1900 this type of businessman's biography was exceedingly rare,⁴⁷ but in the twentieth century it became rather common. A few typical titles may be cited to give a better idea of this kind of material:⁴⁸

Wilhelm Bernhardt, *Wilhelm August Julius Albert, Die Erfindung der Eisen-drahtseile* (Berlin, 1934), published to celebrate the hundredth anniversary of the invention;

Wilhelm Pollmann, ed., *Kommerzienrat Senator Dr. ing. E. h. Fritz Beindorff zu seinem 75. Geburtstag* (Hannover, 1935);
1858-1908, Lebenslauf des Herrn Stanislav Biernatzki . . . Zum 50jährigen Geschäftsjubiläum am 1. 1. 1908 (Hamburg, 1905);

⁴⁵ The second, "vervollständigte" edition exists in Widener Library.

⁴⁶ Corsten, *op. cit.*, no. 2885.

⁴⁷ In fact only one other item (to be found as no. 2882 in Corsten's bibliography) antedates the twentieth century, namely, *Verein der Industriellen des Regierungsbezirks Cöln, Eugen Langen, Gedächtnisrede von . . . Hegener* (Berlin, 1896).

⁴⁸ Corsten, *op. cit.*, nos. 2812, 2818, 2819, 2864, 2887.

*F. A. Freundt, *Emil Kirdorf zum 50jährigen Gedenktage seines Eintritts in den Ruhrbergbau* (Essen, 1922); and
Zum Gedächtnis an Franz von Mendelssohn, Berlin. Reden bei der Trauerfeier in seinem Hause in Berlin-Grunewald . . . 1935 (Berlin, 1935).

These samples are taken to show the occasions which have given rise to entrepreneurial biographies of the first type: the anniversary of an innovation, of an enterprise, or of the entry of an important man into an industry; or the occurrence of the birthday or the death of an outstanding business leader. Needless to say, in this way we do not necessarily get the biographies of the most important or of the most interesting men, but rather of those who themselves or whose present or former business associates understand the value of public relations and advertising or who are widely known, popular, or vainglorious.

The second type of entrepreneurial biography, written because of general or scientific interest in the subject, is in fact also a child of the twentieth century. Only a very few appeared in the nineteenth. The earliest items—those written prior to 1870—have been cited. In addition Corsten lists for the decades between 1870 and 1900 five entrepreneurial biographies, while I know of seven, but the character of the earliest one is doubtful. It is Ernst Korfi, *Dr. Bethel Henry Strousberg. Biografische Karakteristik* (Berlin, 1870) [not listed by Corsten].⁴⁹ There followed Emil Finek, *Barbara Uttmann, die Gründerin der Spitzindustrie im Erzgebirge* (Annaberg, 1886); four items referring to Alfred Krupp (Corsten omitting *Fritz Blencke, *Alfred Krupp* [Leipzig, 1898]); and *L. Berger, *Der alte Harkort* (Leipzig, 1891), the fifth edition of which appeared as late as the 1920's.⁵⁰

Turning now to the biographies of the early twentieth century, we discover as their characteristic feature the fact that for decades achievements other than those in business attracted the attention of biographers and determined both the selection of subjects and the emphasis within the biography. Usually the man in question had either had an outstanding public career, such as *David Hansemann (written by Alexander Bergengrün, Berlin, 1901), *Gustav von Meissen (written by Joseph Hansen, Berlin, 1906), *Ludolf Camphausen (written by Anna Caspary, Stuttgart, 1902), or the *Freiherr von

⁴⁹ This item is not available. I used it more than twenty years ago and can no longer remember if it was an independent or a paid job.

⁵⁰ Corsten, *op. cit.*, nos. 2843, 2869, 2870, 2872, 2882, 2919. Harkort was one of the earliest German industrialists.

Stumm (written by Fritz Hellwig, Heidelberg-Saarbrücken, 1936); or he had been for years before the public eye—which explains the several Krupp or Stinnes biographies or those of Albert Ballin (most important the one having been written by *Bernhard Huldermann, Oldenburg, 1922, and later editions) who had built the Hamburg-America-Line and was generally known as a friend of Emperor Wilhelm II. But that characterization does not hold true in all cases. For example, T. Kellen's *Friedrich Grillo, Lebensbild eines Grossindustriellen aus der Gründerzeit* (Essen, 1913) or *Paul Arnst's *August Thyssen und sein Werk* (Leipzig, 1925) are true businessmen's biographies; and the trend was undoubtedly in this direction.

In contrast to firm histories, entrepreneurial biographies could be undertaken much more easily by outstanding members of the guild of historians or other members of university faculties who were interested in related subjects. Such men were, of course, by their traditional training better equipped to engage in such tasks than in writing the history of firms, the latter involving knowledge of at least the rudiments of bookkeeping, of office procedure, and the like. (To be sure, with such knowledge they could also have produced better entrepreneurial biographies.) Among men of wide reputation writing such books were Mevissen's biographer, the recently deceased Cologne historian Hansen; or Karl Helfferich, the economist, banker, and statesman, at one time connected with the University of Berlin, who wrote masterfully the life of Werner von Siemens' cousin, **Georg von Siemens* [the banker], *ein Lebensbild aus Deutschlands grosser Zeit*, 3 vols. (Berlin, 1921-1923); or Professor Konrad Heuss, now the German *Bundespräsident*, who produced **Robert Bosch, Leben und Leistung* (Stuttgart, 1946), the biography of a great industrialist.

Since most of the business leaders whose biographies were written were men previously known to a fairly wide public, a comparatively large percentage of them have found more than one biographer. That holds true of Abbe, Ballin, Bosch, Daimler, Duisberg, Grillo, Harkort, Alfred Krupp, Emil Rathenau, Werner von Siemens, Soennecken, Stinnes, and Thyssen. Also, there seems to have been a tendency to deal with several succeeding leaders of the same enterprise or with several members of the same family, once the enterprise or family had caught the public's eye. Thus we have, besides histories of their concern, biographies of Friedrich Krupp, Alfred Krupp, Friedrich Alfred Krupp and a history of the family von Bohlen und Halbach, a member of which married the heiress Bertha Krupp; of Emil and Walter

Rathenau and Felix Deutsch, leaders in the A. E. G. (Allgemeine Electricitäts Gesellschaft); of Werner von Siemens, Sir William Siemens, and Wilhelm von Siemens. The leadership in the merger to form the Deutsche Bank und Diskontogesellschaft in Berlin—which produced the largest German bank of that era—can be studied in six entrepreneurial biographies: those of *Hansemann and *Georg von Siemens (already cited), who belonged to the generation of the founders; those of *Max Steingthal and *Arthur von Gwinner (both by Max Fuchs, p. p., Berlin, 1930 and 1931, respectively) representing the next generation of leadership; and those of *Oscar Schlitter (1938) and *Franz Urbig (1939), both written by Maximilian Müller-Jabusch, dealing with a third generation to which fell the task of reorganization. That is to say, there is material available to study changing leadership in certain outstanding enterprises, just as data previously cited indicate the possibility of investigating comparative leadership in similar enterprises in the same period. Especially useful would perhaps be a comparative study of leadership in the three great German electrical concerns, the A. E. G., Siemens, and Bergmann; a different kind of leadership, as far as I can see, has determined the different character of the three competing enterprises.

Lately a trend can be observed in Germany to take an increasing interest in businessmen of the early capitalistic era. Of course, the interest in the Fuggers and Welsers is old. Jacob Strieder published valuable studies on the former (1905, 1926, 1931) who have also been treated by Jansen (1910), Ehrenberg (1922), and Weitnauer (1931). But outstanding is the latest biography, *Jacob Fugger. Kaiser, Kirche und Kapital in der oberdeutschen Renaissance, by Professor Götz Freiherr von Pölnitz, head of the Fugger Archiv in Augsburg (Tübingen, 1949 and 1952), which puts the business activities of the great merchant into their proper historical setting. It is to be followed by a biography of Anton Fugger (which is now in preparation). Other items of this type are *Franz Josef Schöningh, *Die Rehlinger von Augsburg, ein Beitrag zur deutschen Wirtschaftsgeschichte des 16. und 17. Jahrhunderts* (Paderborn, 1927) and Gustav Aubin, "Bartolomäus Viatis, ein Nürnberger Grosskaufmann vor dem Dreissigjährigen Kriege," in *Vierteljahrsschrift für Sozial-und Wirtschaftsgeschichte, XXXIII (1940), 145 ff. We are led back into the eighteenth century by Ehrenberg's book, *Das Haus Parish (Jena, 1905); by *Heinrich Sieveking, *Georg Heinrich Sieveking, Lebensbild eines Hamburgischen Kaufmanns aus der Zeit der französischen Revolution* (Berlin, 1913);

and by *Christian Wilhelm Berghoeffer, *Meyer Amachel Rothechild, der Gründer des Rothschild'schen Bankhauses, Frankfurter Lebensbilder, No. 4* (Frankfurt/Main, 1922), a very satisfactory performance.

I think it is reasonable to estimate that the total number of biographies (including biographical sketches) and autobiographies of German businessmen amounted at the end of 1951 to about 200 (about 30 per cent of which are in the Harvard libraries—older items and those which were privately printed being unavailable there). This figure should be compared with the 450 such biographies existing for the United States, as can be estimated from the Baker Library list cited above. That is to say, while Germany has seven times as many firm histories as this country, the latter has produced more than twice as many entrepreneurial biographies. Moreover, one should compare the dates of 1826, 1837, and 1845, i.e., the years in which, presumably, the earliest biographical sketches of businessmen appeared in Germany, with the date of publication of Stephen Simpson's *Biography of Stephen Girard*. It was a full-fledged biography and appeared in Philadelphia in 1832. These facts clearly reflect the different social standing of businessmen in the two countries.

It comes rather as a surprise that a good deal of German autobiographical material exists in our field.⁵¹ The oldest item is *Glückel von Hameln's *Denkwürdigkeiten* (German translation from the Yiddish, Berlin, 1923). Glückel von Hameln was the wife of a Jewish businessman and a businesswoman herself; and her recollections written in the early eighteenth century, but covering the second half of the seventeenth, are a most interesting source for German Jewish business in that period. They tell us, among other things, about the amount of business capital used by Jewish traders, about the income and dowries which they considered proper, and about what a Jew of the period had to own to be considered rich by his co-religionists.

Of an entirely different character and really pertaining to the eighteenth century, is *Johannes Gotzkowsky's equally important *Geschichte eines patriotischen Kaufmanns* (2d ed., n. p., 1769). Gotzkowsky was a Berlin merchant who also tried his hand in manufacture,

⁵¹ Incidentally, there are not only autobiographies of German business leaders, but also 28 autobiographies of German workers. See *Cecilia A. Trunz, *Die Autobiographien von deutschen Industriearbeitern*, Freiburg, Ph.D. Thesis, 1934. It might be an attractive little research job to find out what these workers thought about entrepreneurship and individual businessmen.

closely cooperated with Frederick II of Prussia, and conducted what were for the times very large financial transactions. His failure gave rise to the publication which is of an apologetic character.⁵² In addition to Gotzkowsky, John Parish, the great Hamburg merchant of Scottish descent and one of the very successful business leaders of the eighteenth century, left his recollections. They were used and partly printed by *Richard Ehrenberg in his previously mentioned book, *Das Haus Parish* (Vol. II of *Grosse Vermögen, ihre Entstehung und ihre Bedeutung*, Jena, 1905; 2d ed., Jena, 1925). It is very unfortunate that Ehrenberg did not see fit to reprint the whole manuscript. It was in the possession of Parish's descendants, the Freiherren von Senftenberg in Bohemia, and one must doubt whether it has survived the late war and the political upheavals in Czechoslovakia. Of much lesser interest is the publication of an eighteenth-century Berlin Jewish businessman, *Benjamin Veitel Ephraim, *Über meine Verhaftung und einige andere Vorfälle meines Lebens* (2d ed., Dessau, 1808). The very vain man touches only lightly on his business activities—which is quite understandable: they were not always too clean, as we learn from other sources.

Into the nineteenth century fall Johann Gottlob Nathusius' creative activities. He was a Magdeburg merchant (1760-1835) and one of the pioneers of the German beet-sugar industry. He left recollections (covering his early life in the eighteenth century) which were privately printed for the family but which later became the basis of *Elsbeth von Nathusius' book, *Johann Gottlob Nathusius, ein Pionier deutscher Industrie* (Stuttgart and Berlin, 1915), in which they are largely reprinted. The description of Nathusius' rise from humble

⁵² The second edition of Gotzkowsky's recollections contains a second part whose authorship seems to be doubtful. It deals with the publisher Daniel Christian Hechtels, who did business first in Frankfurt/Main, later in Magdeburg, and still later in Helmstedt. The item is a very poor performance, although one can get glimpses of the difficulties with which publishers were faced at the time of political upheavals. One episode in it deserves mention: a publisher who could not sell a certain book tried to bribe the censor to forbid it under some trumped-up pretext, in the hope that this action would have the consequence of whetting the public's appetite for the item.

Another eighteenth-century autobiography which has just come to my attention is Gotthelf Greiner, *Lebensbeschreibung des . . . zu Limbach, Erfinder des Thüringer Porzellans, 1732-1797. Kulturhistorische Bilder aus dem Meininger Oberlande* (Hildburghausen, 1876).

beginnings is very attractive and reminds one of Poor Richard. Nathusius' contemporary was Peter Eberhard Müllensiefen (1766-1847), who established in Iserlohn, Westfalia, one of the earliest German manufactures of steel needles. His autobiography was published by Friedrich von Oppeln-Bronikowski under the title, **Ein deutsches Bürgerleben vor 100 Jahren, Selbstbiographie . . .* (Berlin, 1931). The book shows interestingly the petty-bourgeois atmosphere in which a good deal of the German industrial revolution took place, and permits glimpses into the business activities and methods of Bürgermeister Rumpf of Altena who was one of its exponents in what is now the Rhenish-Westfalian industrial area.

The middle of the nineteenth century is covered by the autobiography of Bethel Henry Strousberg, **Dr. Strousberg und sein Wirken von ihm selbst geschildert* (Berlin, 1876). These recollections, in many ways a unique performance, were written in jail in defense of the author's business activities which fall approximately into the period between the crises of 1857 and 1873. Regardless of serious shortcomings, Strousberg was one of the great business leaders of the nineteenth century, to be sure a highly speculative businessman, but the builder of several very important European railroads. He is interesting also in that, starting from railroading as his basis, he attempted vertical integration by undertaking the production of rails, steel, and related commodities. Being versed in all the intricacies of corporation finance, he was not understood by his contemporaries and bitterly condemned when his career, after a meteoric rise, ended in disaster. Indispensable for studying the background of Strousberg's work and the hostile climate in which he and his trail-blazing contemporaries moved are two contemporary books by Otto Glagau: **Der Börsen- und Gründungsschwindel in Berlin* (Leipzig, 1876) and *Der Börsen- und Gründungsschwindel in Deutschland* (Leipzig, 1877). Strousberg still waits for a biographer to do him justice. Through the acquisition of the Wallich library on economic history, Baker Library has what is probably the most complete collection of Strousberg items in the world.⁵³

We are introduced to the end of the nineteenth century and the first half of the twentieth by a greater number of autobiographies, that of

⁵³ Incidentally, articles on Strousberg are to be found in *Stahl und Eisen*, XXX (1910), 2036 ff., and XXXI (1911), 967 ff.; and in Matschoss' *Beiträge* (see page 11), XIV (1924), 65 ff.; a few notes on him are in Fürstenberg's recollections (see below, page 40).

Werner von Siemens published under the title *Lebenserinnerungen* (Berlin, 1892, and very numerous later editions) leading the parade. To be sure, this great inventor and creative entrepreneur did not stress the business aspect of his activities, being in his outlook typically a member of the German upper strata of his times. This cannot be said, however, of the autobiographies of Otto Pilet (1900) and *Heinrich Dräger (1913), nor of the later volumes by *Heinrich Ehrhardt (1922), Max Bahr (1926), Ernst Voss (1930), *Eduard Breuninger, and Georg Haberland (both 1931).⁵⁴ The latest items of an autobiographical nature, with which I am familiar, are *Carl Duisberg's (the famous chemist's and industrialist's) *Meine Lebenserinnerungen*, edited by Jesco von Puttkammer (Leipzig [1933]), *Rudolf Bungeroth, *50 Jahre Mannesmannröhren, 1884/1934, Erinnerungen und Erlebnisse* (Berlin, 1934), and *August Horeh's *Ich baute Autos* (1st ed., Berlin, 1937; new ed., Lengerich, 1949). *Carl Fürstenberg, *das Lebensbild eines deutschen Bankiers*, edited by his son Hans Fürstenberg (Berlin, 1931), approaches the character of a genuine autobiography, based, as it is, on experiences narrated to the latter.

Ehrhardt's little book alluded to, entitled **Hammerschläge* (Leipzig, 1922), stands out in the group because its author has asked himself and answered just the kind of questions which an interviewing scholar would have asked him. Attention of the business historian is also called to an autobiographical item in which he would hardly expect to find pertinent material, namely, *Otto Schloifer's *Bana Uleia. Ein Lebenswerk in Afrika* (3d ed., Berlin, 1943). Schloifer was an officer in contact with the colonial forces stationed in German East Africa. Becoming acquainted with the great possibilities of the colony this born entrepreneur became a businessman and developed a whole string of enterprises, especially in the fields of salt, coal, and gold. His notes give a very good idea of how he was drawn into his undertakings and by what methods he developed them, but the interesting material is interspersed with much which has no value. Akin to Schloifer's book is that of Otto Riedel, *Der Kampf um das deutsche Samoa. Erinnerungen eines Hamburger Kaufmanns* (Berlin, 1938).

Returning now to biographical material, I would note that many such data on German business leaders can be found in collections of biographies, the oldest of which, here of interest, may be **Lebens-*

⁵⁴ Corsten, *op. cit.*, nos. 2895, 2828, 2833, 2814, 2922, 2841; as to Breuninger, see above, page 18, and for an item by Körting, see page 11.

beschreibungen merkwürdiger und berühmter Kaufleute (Nürnberg, 1796; *2d ed., Nürnberg, 1832).⁵⁵ According to the foreword of the first edition of this book which contains fourteen biographies, the volume was originally suggested by certain merchants who felt that mercantile biographies would be interesting and inspiring for young men devoting themselves to business. Whoever wrote that preface appreciated how difficult it would be to provide satisfactory sketches: merchants considered their methods "mysteries" which were to be shielded from the public's eye, so that their biographies had to start from unrelated facts and morsels of information which hardly permitted conclusions as to why the merchant under investigation rose to prominence. Consequently the biographer had no other choice but to draw from the effects conclusions on probable causes and to piece the picture together as well as he could.

The writer of the introduction, as distinct from the preface, went even further and developed a true program for entrepreneurial biography; but, of course, the execution of the sketches contained in the volume falls far short of that ambitious program. A young man starting out on a business career, so the eighteenth-century writer states, will ask for the essentials of the branch in which he is to be active: he wants to know what is needed to succeed therein, what kind of difficulties he can expect, and by what methods they can be overcome. The best answers could be found in the experience of businessmen who had actually been successful, and thus businessmen's biographies are desirable. One must expect from a good biography of this class of men that it contains information on the training of the subject; and it must describe and explain the main events of his career, with their causes and effects. The young businessman will thereby learn to realize the importance of an adequate training and of certain qualities of character. The biographer should ask and answer the following questions: how did the subject of the biography acquire the knowledge of which he made use so successfully? Under what conditions did he grow up before he entered business? How did he spend his spare time? What kinds of information did he acquire and what kinds of experience did he have, and in what way and under what conditions, respectively? How did he happen to enter the branch of business in which he later rose to success? How did general and trade conditions

⁵⁵ The corresponding American item, Freeman Hunt's *Lives of American Merchants*, appeared in New York in 1858.

favor him and, on the other hand, what kind of difficulties did he have to cope with? By what kind of methods and through what special gifts did he rise or, vice versa, by which errors and misfortunes did he fall? Written in the 1790's this is a truly remarkable program which could be used to good purpose even today. Our writer felt that it was not to the point to deal alone with the big money-makers (he used the word "Millionairs"). Other merchants might be more interesting and their lives more inspiring. While *Handlungswissenschaft* taught the principles of business and provided needed information, businessmen's biographies showed how such principles and information were applied in practice.⁵⁶

According to the preface of the 1796 edition, a second volume was planned, but it does not seem to have been published. Maybe the sketches written for that volume were embodied in the second edition of the book which contains 27 of them, one of those in the first edition being omitted. Among these 27 is Gentz's previously cited paper on the Rothschilds,⁵⁷ presumably in the form in which it was published in Brockhaus' encyclopedia (probably a case of piracy).

As a matter of principle one must distinguish two main types of collective biographies, the one just described belonging to the second. This second one selects its subjects from a limited number of persons along professional or regional or other specific lines. In contrast, the first is catholic or all-embracing, covering distinguished individuals from all walks of life—and within both types we could classify the items according to whether they were prepared primarily for scholars or for a wider public (although, of course, some items of the latter class are of value to the student also). As to the form, the collections range between a series of biographical sketches of the encyclopedia type and an assembly of genuine essays.

It is typical of the German all-embracing collective biographies that only a very small percentage of the total number of biographies is devoted to business leaders. There is only one exception to that rule, namely, the **Reichshandbuch der deutschen Gesellschaft* (Berlin, 1930-

⁵⁶ Similar ideas can be found expressed in a low-class American publication of the 1870's: "There is no school like that of biography for obtaining [an] education" with regard to proper "business habits." "The study of biography . . . is one of the most potent means of stimulating youthful effort." See H. C. McCurdy, *Win who Will or the Young Man's Key to Fortune . . .* (Philadelphia, 1872), 43, 56; the pamphlet contains a section of businessmen's biographies.

⁵⁷ See above, page 32.

31), a late example of the type, prepared during the era of the Weimar Republic, in which public opinion was more interested in businessmen than it was in either the imperial or the Nazi period. But that statement will be found to be true of the standard scientific biographical handbook, the **Allgemeine Deutsche Biographie* (Berlin, 1875-1900, supplementary volumes, 1902-1910); the **Biographisches Jahrbuch und Deutscher Nekrolog*, 18 vols. (Berlin, 1897-1913), although the preface of the first volume expressly promised information on industrialists; and its successor, the **Deutsches Biographisches Jahrbuch*, which after its suspension during the recent war has not reappeared as yet.

The above statement also holds true of popular collections of biographies. A few of them have been checked: an early one is **Zweihundert Bildnisse und Lebensabrisse berühmter deutscher Männer* (3d ed., Leipzig, 1870). Among the 200 men selected, there were 2 businessmen (exactly 1 per cent), namely, J. G. Immanuel Breitkopf (1719-1794), the Leipzig printer and type-founder, and Georg Andreas Reimer (1776-1842), the Berlin publisher and bookdealer. The selective principle is evident: the subject must have provided a valuable service to the country's great literary figures to be included; (one is really tempted to say, *although* he was a businessman).^{57a} Or let us analyze collections published about seventy years later. One is **Otto Urbach, Durch schöpferische Leistung zum Erfolg. Zehn Lebensbilder schöpferischer Menschen* (Hamburg, 1940). Of the ten essays of creative men and women, one is devoted to men active in industry, namely, J. G. Halske, Werner von Siemens' partner in Siemens & Halske, and Heinrich D. Rühmkoff (1803-1877), who had established in Paris an enterprise for the building of scientific instruments and apparatus. Typically these two men are treated as creative craftsmen, and in fact both were hardly "infected" by the spirit of capitalism. It does not seem to have occurred to that author that there are also creative ("schöpferische") business leaders. A second item that may be analyzed is **Willy Andreas and Wilhelm von Scholz, Die grossen Deutschen. Neue Deutsche Biographie*, 5 vols. (Berlin, 1935-1937). The work contains 204 biographies of which 8 (or about 2 per cent) are

^{57a} Karl Demeter has pointed out that German book dealers enjoyed a higher social status than other merchants; see "Die soziale Schichtung des Deutschen Parlamentes seit 1848 . . ." in *Vierteljahrsschrift für Sozial- und Wirtschaftsgeschichte*, XXXIX (1952/53), 19.

devoted to business leaders, one of them dealing with two men, the automobile manufacturers Daimler and Benz. Again it is interesting to observe who is selected: first of all, those German business leaders who are most commonly described in such collections: Alfred Krupp, Werner von Siemens, and Ernst Abbe, the latter having developed the Zeiss works in Jena and being widely known because of his attitude toward labor. The others are Adolf Woermann, Carl Duisberg, Hermann Henrich Meier, and Adolf Lüderitz.⁵⁸ That is, of the nine men, all told, three are Hanseatic merchants, three are the traditional standbys, two are automobile manufacturers, and one is the exponent of what was then the world's leading chemical enterprise. A few years later, Professor Conrad Heuss wrote a number of biographical essays which were published in the *Frankfurter Zeitung* between 1938 and 1943 and later republished under the title **Deutsche Gestalten, Studien zum 19. Jahrhundert* (Stuttgart, 1947). Of 47 sketches Heuss devoted six to business leaders, namely, to Krupp, Siemens, and Abbe, as could be expected, and the rest to the following: Harkort, Jacob Mayer, an inventor and industrialist in Bochum, and Ottmar Mergenthaler, the inventor and producer of the linotype machine.⁵⁹

What then are the reasons for this relative disregard of the business leader by the editors or authors of biographical books of the virtually all-embraceive type? There are undoubtedly three. First the business leader as an important figure is a late-comer to the thousand-year-old European civilization. Or to put it differently, up to the eighteenth

⁵⁸ Woermann, the founder of a shipping line; Duisberg, the leading man in the I. G. Farbenindustrie; Meier, the great Hanseatic merchant and statesman; and Lüderitz, Hanseatic merchant and colonial pioneer.

⁵⁹ A few more items may be analyzed in passing: Paul Herre in *Schöpferisches Alter* . . . (Leipzig, 1939) deals with men and women who were active and creative until late in their lives. Of 14 chapters, one is devoted to engineers and business leaders. The presentation is so sketchy and superficial that the value for business historians is zero. Rudolf Baumgardt, *Das Fundament* . . . (Berlin, 1941) deals with creative Germans of the nineteenth century. Thirty-two persons are treated of whom six are industrialists. Again, maybe one should say, *of course*, we find Krupp and Siemens, and in addition Duisberg, Harkort, Borsig (the Berlin locomotive builder), and Schichau (the East Prussian machine manufacturer and shipbuilder).

The extent to which Krupp's reputation with the public was built up in the Nazi era can be seen from the fact that in a collective biography by Wolfgang Loeff published in Stuttgart in 1944, entitled *Männer deutscher Geschichte*, he appears beside Bismarck, Moltke, Hindenburg, and Admiral Scheer.

century there were only very few identifiable and really important figures in business, in fact merchants, important when measured with contemporary yardsticks. Thus a German editor dealing with a thousand years of historical development can devote only limited space to this class of men. But the relative disregard also reflects the fact that the German business leader has had to fight for social recognition and was doing so as late as the beginning of the twentieth century. That is to say, the selective principle, obvious from these samples, is indicative of a certain value scale and of the social status assigned to businessmen by the ruling strata. Finally, one should not forget that business leaders are not "charismatic" leaders, as Sombart was wont to stress; or as a recent American author expressed it, they are a strange kind of "leaders" in that they don't wish any followers. Consequently until a late stage of capitalistic development they could not attract much public interest. Incidentally, in analyzing the all-embracing type of German collective biographies one meets with a surprise: bankers and exponents of heavy industries found social recognition earlier than other businessmen, and Rhenish businessmen, in addition to Hanseatic merchants, came to the fore first; but strangely enough these facts are not reflected in the collective biographies.

In contrast, what is mirrored, when one compares the all-embracing collective biographies published in different periods, is the changing political climate which reacted by producing changing value scales. These are reflected both in the percentage of entrepreneurial biographies in the total and in the subjects selected for presentation: as to the former, after the empire had given way to the Weimar Republic a tendency can be observed—as already suggested—to devote in collective biographies more and more space to businessmen. That trend goes parallel with their increasing importance in the social structure and the increasing popular awareness of their importance, albeit often in a hostile spirit. (One should compare the *Allgemeine Deutsche Biographie* and the *Reichshandbuch der deutschen Gesellschaft*.) As soon as the Nazis came into power businessmen were pushed into the background again, as can be seen also in the collective biographies. Typically Konrad Heuss, who remained all his life the exponent of a liberal outlook, devoted in his collection more than 10 per cent of the sketches to business leaders, i.e., a much higher proportion than other collective biographies and especially those of the Nazi period.

As to the persons selected, one should compare the two semi-literary businessmen of the popular collective biography of 1870 and those considered worthy of admission into the *Allgemeine Deutsche Biographie*, mostly because of achievements other than in business, with the great number of true business leaders in the *Reichshandbuch*. On the other hand, in the first collective biography after World War II, *Wilhelm Fronemann and Karl Friedrich Schmid, *Aus eigener Kraft. Lebensbilder führender Männer* (Frankfurt, 1946), three businessmen appear besides the physician and physicist Robert Mayer. Of these, two are Germans, Ernst Abbe and the Jew, Albert Ballin, while the third sketch is devoted to Benjamin Franklin. Such choice would have been unthinkable prior to the defeat. It was the era of "re-education"! Ernst Abbe, on the other hand, held the interest in every period. His greatness is beyond doubt and his contribution to *Sozialpolitik* made him an acceptable subject under every regime, although the accent might be shifted according to the interests of the latter.

We may now return to the second type of collective biographies, of which I have mentioned only the *Lebensbeschreibungen* of 1796. In any analysis of such publications we should distinguish them by the selective principles which are (a) geographical and (b) professional. In the former case we find occasionally again the characteristic shortcoming which we know from the study of the all-embracing type. Take, for example, *Hans Joachim Beyer and Otto Lohr, *Grosse Deutsche im Ausland* (Stuttgart, 1939). It contains 31 articles about great Germans abroad, some of the articles dealing with several men. Of these, three are devoted to business leaders, namely, to Hans Boner, a sixteenth-century German merchant in Poland; Karl Scheibler, the great industrialist who contributed so much to the building of the Lodz (Poland) textile industry; and Adolf Lüderitz, the colonial pioneer.

After World War I biographical sources of this character (i.e., type 2a) were opened up systematically by the historical commissions (*Historische Kommissionen*) or equivalent organizations of various German states and Prussian provinces. These collections all of which contain at least some entrepreneurial biographies—sometimes a relatively high percentage—usually have a standardized title: *Lebensbilder*, preceded by an adjective indicating the region which is covered, such as *Mitteldeutsche Lebensbilder, *Nassauische Lebensbilder, etc. (As a matter of fact, the following additional collections are known to me: *Pommersche Lebensbilder, *Saarpfälzische Lebensbilder [edited by

the Pfälzische Gesellschaft zur Förderung der Wissenschaften], *Schlesische Lebensbilder, Schwäbische Lebensbilder, and *Sächsische Lebensbilder, Vol. III of which deals with the Saxon industrialists.) To the same family belong the following items with non-standardized titles: *Westfälische Biographieen, Hessische Biographieen, and Lebensbilder aus Kurhessen und Waldeck. Similar in character are the *Bremische Biographie des neunzehnten Jahrhunderts, edited by the Historische Gesellschaft des Künstlervereins (Bremen, 1912), and the collection of August Lomberg, Bergische Männer, ein Beitrag zur Geschichte der Heimat (2d ed., Elberfeld, 1927).

But the collections in which we are really interested are those of type 2b dealing exclusively with merchants and industrialists. The oldest one, being also the oldest collective biography which is of importance in the present context, has been sketched at the head of the section on collective biographies. Published, as will be recalled, in the last decade of the eighteenth century, it found no successors for about seven decades. But then there appeared the collective biography of Franz Otto, i.e., Otto Spamer, *Buch berühmter Kaufleute oder der Kaufmann zu allen Zeiten* (Leipzig, 1868; 2d ed., Leipzig, 1870), followed by a second series, *Der Kaufmann zu allen Zeiten oder Buch berühmter Kaufleute, Zweite Sammlung (Leipzig, 1869). In the preface of Volume I the author-editor-publisher speaks of the difficulties which he encountered in locating among the few competent men any who were both able and willing to deal with the subject for popular consumption. He was equally handicapped by the unwillingness of the men, or the families of the men, selected as subjects of the book to provide him with information, although a few did so. Both these facts give an idea of the atmosphere prevailing by 1870 in and relative to German business. Competent scholars would not write for a popular book, and those to be presented therein or their families, in a misplaced sense of dignity, were uninterested or uncooperative for fear of being accused of pushing themselves forward. Under these circumstances the publisher of the project had more or less to write the book himself.

As a matter of fact Spamer's approach to the subject was a very broad one: he deals with medieval as well as modern businessmen; and there appear in the procession English, American, French, Russian, Swiss, and, of course, numerous German figures. Among the last-named we find the Fuggers and Welsers for medieval times; Peter Hasenclever, Johannes Gotzkowsky, Christian Gottlob Frege, and

Justus Perthes representing the eighteenth century; while for the nineteenth century, there are the Rothschilds and Salomon Heine, bankers, Ernst Wilhelm Arnoldi, the pioneer in insurance, the great publisher Cotta, and the industrialists Gottlob Nathusius, Friedrich von Diergardt, Heinrich Rapp, August Borsig, Richard Hartmann, Theodor von Cramer-Klett, Johann Nikolaus Dreyse, and Alfred Krupp. Spamer's book was for the time a brave attempt, as can be seen from the names of highly important and creative business leaders who neither then nor later attracted the public fancy. The selection indicates real familiarity with the subject of business leadership. Additional businessmen are mentioned in the course of the various articles, but it would take much too much space here to give the names of those treated only in passing.

Between 1900 and 1910 a few more items of the same character were published. Wilhelm Berdrow wrote his **Buch berühmter Kaufleute* (Leipzig, 1905; 2d ed., 1909), dealing with the Fuggers, Welsers, Rothschilds, Krupp, and Siemens, besides businessmen of other nationalities; from Ehrenberg's pen came **Die Fugger, Rothschild, Krupp. Grosse Vermögen, ihre Entstehung und ihre Bedeutung*, I (Jena, 1902); and in addition there appeared *Magdeburger Grosskaufleute, Lebensbilder* herausgegeben zur Einweihung des Hauses der Handelskammer (Mag'deburg, 1906). Immediately after World War I, the trade-association official, Hermann Schoeler, defending private enterprise in the course of the contemporary fight against nationalization (planned by the German socialists) published a series entitled **Das Sozialisierungsprogramm der Sozialdemokratie*. Number 3 in the sequence is a collection of twelve biographies of business leaders, entitled **Helden der Arbeit* (Berlin, 1920), which appeared later independently (4th ed., 1925). He intended to prove by these biographies that entrepreneurs were indispensable to the national economy. The volume, however, has a certain permanent value because it deals with a few important men who are not as widely known as Abbe, Harkort, Krupp, and Siemens—who also appear in the book as might be expected. These less well-known business leaders were August Borsig and his son Albert (Berlin locomotive manufacturers), Heinrich von Brunck (chemical industry), David Hansemann (banker), Karl Krause (Leipzig machine manufacturer), Ferdinand Schichau and his successor Carl H. Ziese (shipyard owners), and Albert Schultz-Lupitz (a great agricultural entrepreneur). More such collections followed in the 1920's and 1930's, namely, **Richard Lewinsohn* (pseud. Morus)

Wie sie gross und reich wurden. Lebensbilder erfolgreicher Männer (Berlin, 1923); *Felix Pinner, *Deutsche Wirtschaftsführer* (Charlottenburg, 1924), *Walter Däbritz, *Unternehmertypen aus dem Rheinisch-Westfälischen Industriegebiet* (Jena, 1929); and, last but not least, in fact a most important series, **Rheinisch-Westfälische Wirtschaftsbioographien* (so far 4 volumes, 1931 and later years). One item of the class appeared during World War II: *Ernst Quadt, *Deutsche Industriepioniere* (Berlin, 1940).

Corsten's bibliography is a good, although incomplete, guide to entrepreneurial biographies; collective biographies are easily checked by anyone interested in the area of German business leadership. But there are other sources in which we may expect to find pertinent material, sources which are not always easily accessible and, even if they are, not easily opened up. I mean the periodical literature. As a matter of fact, a good deal of fruitful work could be done by a competent bibliographer, especially since the periodicals in question not only contain entrepreneurial, but also firm-historical data. To begin with, periodicals of trade associations and technical periodicals, such as the *Zeitschrift des Vereins deutscher Ingenieure*, can be expected to yield some information, and so does *Stahl und Eisen*, the official journal of the *Verein deutscher Eisenhüttenleute*. Between 1909 and 1914, or thereabouts, when the latter organization took a temporary interest in historical studies and, indeed, set up an historical commission, that interest was reflected in a rather notable number of historical papers published in its periodical.⁶⁰

Of scholarly historical periodicals of universal coverage the *Vierteljahrsschrift für Sozial- und Wirtschaftsgeschichte* is worth watching. After a suspension during the war and a second recent suspension it is appearing again. Moreover, periodicals on local history seem to be taking an increasing interest in firm and entrepreneurial history, as was indicated by spot checks and bibliographical notes in historical periodicals of broader coverage. This development would appear natural, since local history and especially local industrial history

⁶⁰ See *[Walter Däbritz], *75 Jahre Verein deutscher Eisenhüttenleute, 1860-1935* (Düsseldorf, 1935), 101, 102. This item is a reprint from *Stahl und Eisen*, LV (1935), 1,251 ff. The above reference is on pp. 1,351-52. Incidentally, there are in that *Festschrift* numerous biographical sketches of iron producers, including business leaders in the field; they are easily found, inserted as their names are at the top of the pages, separate from the text.

always paid at least some attention to material of interest to the business historian.

Again, a good deal of entrepreneurial history is hidden in genealogical publications, including full-fledged family histories. As early as 1931 Gerhard Kessler, then professor of economics in Leipzig, drew attention to the great contribution that genealogy could make to economic and business history, especially if genealogists could be induced to cooperate.⁶¹ His study, *Genealogie und Wirtschaftsgeschichte*, was first published in the **Archiv für Kulturgeschichte*, XXII (1931) and later independently as Number 21 of the *Flugschriften für Familiengeschichte* (Leipzig, 1932). Although cooperation between devotees to the two subjects does not exist in Germany, some German genealogical publications are of real value for business-historical research. To give a few examples: *Justus Hashagen, *Geschichte der Familie Hoesch*, 2 vols. (Köln, 1911 and 1916), the history of a family, members of which have been leaders in the iron and paper industries; *Heinrich Pallmann, *Simon Moritz von Bethmann und seine Vorfahren* (p. p., Frankfurt am Main, 1898); *Gerth von Eynern, *Die Unternehmungen der Familie vom Rath. Ein Beitrag zur Familiengeschichte* (Berlin, 1930); Heinrich Kelleter and E. Poensgen, *Die Geschichte der Familie Poensgen* (p. p., 1908) which deals with an old family of iron masters.⁶² Last, but not least, a publication in English may be mentioned here which contains material of German entrepreneurship in England and America: *Georgina Meinertzhangen, *A Bremen Family* (New York, 1912).

V

The reader of the foregoing section of this survey will have recognized that by 1940 a great amount of pertinent biographical material on German business leaders had been unearthed and published. But whatever existed had come into being in a rather haphazard way, a circumstance which made for serious gaps. Moreover, much of the published material neglected just those questions in which the busi-

⁶¹ The author has wondered for years if it would not be possible in America to arrange for meetings of economic and business historians with genealogists for the purpose of inducing the latter to look out for material in which historians are interested and to present it in a suitable form. Here is a wide field for cooperative research.

⁶² See also Corsten, *op. cit.*, nos. 2811, 2813, 2817, 2824, 2848, 2850, 2854, 2859, 2863, 2867, 2897, 2901, 2906, 2925.

ness historian is interested. Finally, synthesis was almost entirely lacking, although attempts in this direction were made repeatedly after World War I. Professor Kurt Wiedenfeld, the Leipzig economist, edited the series *Die Deutsche Wirtschaft und ihre Führer* (Flamberg Verlag, Gotha), of which ten volumes appeared in the 1920's; the most important of them in the present context being those on the chemical industry (by Berthold Rassow), Upper-Silesian mining (by Bruno Knochenhauer), lignite coal mining (by Wilhelm Oellerich and Georg Czempin), the book trade (Gerhard Menz), and the *newspapers (Emil Dovifat). In 1940 Wiedenfeld published **Deutsche Eisenbahngestalter aus Staatsverwaltung und Wirtschaftsleben im 19. Jahrhundert: 1815-1914* (Berlin, 1940). (The study was printed first in the *Archiv für Eisenbahnwesen*, 1940, No. 5.) In the same year there appeared *Friedrich Prüser, *Vom Bremer Überseekaufmann in Abhandlungen und Vorträge herausgegeben von der Bremer Wissenschaftlichen Gesellschaft*, XIV, No. 1, a very similar synthesis, methodologically. In the meantime another attempt had been made in the book of *Hugo Rachel, Johannes Papritz, and Hugo Wallach, *Berliner Grosskaufleute und Kapitalisten*, 3 vols. (Berlin, 1934-1938). Synthesis was further promoted in the early 1930's when Christian Fischer, then a leading Berlin banker, offered a prize for a history of the German business leader (*Unternehmer*). To be sure, too short a time was allotted for the submission of the manuscripts so that no satisfactory work came forth and the prize lapsed. After twenty years of work in the field I know that one needs several years for writing from the entrepreneurial point of view the history of any one single industry, so that the conditions of that competition appear rather naive today. But it made people conscious of the research task and in a devious way induced me to work in the field. My own contribution to German entrepreneurial history, also aiming at synthesis, can be found in a chapter of my **History of American Business Leaders*, I (Ann Arbor, 1940) where by way of contrast to American affairs I deal with leaders in the German iron and steel industry; and in the paper, "The Leaders of the German Steam-Engine Industry during the First Hundred Years," published in the *Journal of Economic History*, IV (1944).

In the 1930's, reacting to the unsatisfactory state of entrepreneurial research, Professor Kurt Wiedenfeld, who since 1923 had been located at the University of Leipzig and was a first-class scholar with a lifetime interest in the subject, succeeded in gaining the backing of the

Deutsche Akademie in Munich for a very promising systematic investigation in the field.⁶³ Born in 1871, Wiedenfeld had started his academic career at the University of Berlin and from 1904 to 1914 had taught at the *Handelshochschule* in Cologne, which was then truly a nursery of business history. Elsewhere I have described this project as follows:⁶⁴ In 1935 the *Deutsche Akademie*

instructed its committee on political economy to organize research on the personalities who in the nineteenth century both as government and business administrators can be assumed to have had a determining influence on German economic life. This research was to be done also with a view to investigating whether economic development in the nineteenth century was the work of individuals or the result of mass phenomena which absorbed and blurred their activities.

The success of such a program was predicated on the availability of a large number of biographies of prominent business men. This material was lacking in Germany, since the business man there has, generally, had a lesser status accorded him by the community than, for example, his American counterpart. Furthermore, research of this kind had hitherto been confined to particular instances or to particular regions.

Professor Wiedenfeld accordingly set out to create a collection of business biographies along the lines of the great German biographical collection, the *Allgemeine Deutsche Biographie*, in which business men had received scant notice. He dispatched throughout Germany a questionnaire (accompanied by detailed instructions). From the returns received he then compiled a card-index of biographical information which, by 1941, contained data on no less than 10,000 persons. At that time he reported that a competent cadre of persons had signified their interest in the project to warrant hope for its ultimate success.

Unfortunately this project came to naught. The questionnaires and one set of the cards embodying the information which had been drawn from the latter were destroyed by bombs in Berlin. The second set of the cards, stored consecutively at the three different places that had been considered safe, was lost, except a small remnant of about 10 per cent. This remnant will be used for the *Neue Deutsche Biographie*, a new biographical handbook which is being prepared under the sponsorship of the *Historische Kommission der Bayerischen Akademie*.

⁶³ Wiedenfeld himself described the project in an essay entitled, "Deutsche Wirtschaftsführer," which appeared in **Von deutscher Art (Festgabe für Ludwig Siebert)*, Deutsche Akademie, 1939, pp. 90 ff. and in another entitled, "Deutsche Führer von Staat und Wirtschaft" in *Zur Wirtschaftsgeschichte der deutschen Unternehmung* (for this item, see footnote 72).

⁶⁴ *Explorations in Entrepreneurial History*, II (1949-50), p. 100.

*der Wissenschaften.*⁶⁵ German scholarship is back again where it was in 1935, if in fact it is not much worse off. In view of all the destruction and the loss of the Eastern provinces, much needed information is gone forever, a real deprivation for the interested scholar.

VI

Of all segments of business history, that which deals with the evolution of business institutions, business tools, business customs, businessmen's thinking, and the like—an important branch of business history—is least developed in Germany, a situation paralleling that in other countries. Ehrenberg had a distinct understanding of the problems involved, as can be seen from previously cited titles of some of the papers published in the *Thünenarchiv*. These articles are in fact very early examples in the field which has remained ever since in the pioneering stage, except for some histories of accounting, such as *Balduin Penndorf, *Geschichte der Buchhaltung in Deutschland* (Leipzig, 1913) or C. Leyerer, "Historische Entwicklung der Buchführung . . ." in *Zeitschrift für Handelswissenschaftliche Forschung*, XVI (1922), 123 ff. There is also an historical chapter on this subject in the earlier editions of *Eugen Schmalenbach's widely used book, *Dynamische Bilanz*.⁶⁶

The importance of this segment of business history has at least been recognized, as is indicated by the paper of Karl Hax on "Die Bedeutung der historischen Methode für die Betriebswirtschaftslehre" in *Zeitschrift für Handelswissenschaftliche Forschung*, Neue Folge, I (1949), 550 ff. Moreover, Eugen Schmalenbach who had this particular kind of business history in mind, as one can see from the context, pointed to its value in the training of business administrators. Business history, according to Schmalenbach, gave them a feeling for change, especially for the continuous change of industrial locations, and the ability to recognize the present as a transitory stage in a development. Without such training the businessman was inclined to look at present conditions as permanent,⁶⁷ a statement to which everyone in America who knows the way that businessmen

⁶⁵ A translation of Wiedenfeld's questionnaire is reprinted in Appendix I to this report.

⁶⁶ See, for example, 4th ed. (Leipzig, 1926), 12 ff.

⁶⁷ "Neue Aufgaben der Betriebswirtschaftslehre" in **Betriebswirtschaftliche Beiträge*, no. 1 (1947), 6.

think will heartily agree. But while seeing the need, the Germans have also been aware of the difficulty of developing the field. The exponents of the science of business administration practically always lack historical training, and the historians only in the rarest cases know much about business. One of the few German scholars qualified to work on the subject is Bruno Kuske, the renowned Cologne economic historian previously mentioned, who however retired in 1951.

*Josef Löffelholz tried to blaze the trail in his *Geschichte der Betriebswirtschaft und der Betriebswirtschaftslehre* (Stuttgart, 1935) published as Volume XXIII of the series *Betriebswirtschaftliche Abhandlungen* (edited by W. Kalweram). The book is useful, some parts being very interesting, but it has the typical shortcomings of any attempt to survey and synthesize while the monographic support is still largely non-existent. As a matter of fact, research in this area could be built on a very broad basis, namely, the extraordinarily rich literature of the eighteenth and early nineteenth centuries on *Handelswissenschaften* and related fields (e.g., *Bank- und Börsenwesen* and *Versicherungswesen*) i.e., the literature on the techniques of trade, banks, exchanges, and insurance. There is an excellent bibliography available on those subjects: *Magdalene Humpert, *Bibliographie der Kameralkissenschaften*, Volume I of the *Kölner Bibliographische Arbeiten*, edited by H. Corsten and E. Walb (Köln, 1937). This bibliography contains (on Pages 420-606) a total of 2,394 titles which would be of more or less interest to the student concerned.⁶⁸

VII

It is obvious that business records and private papers of business leaders are the most important sources for business history. The preservation of such material has become a problem in Germany, just as it is in the United States and Britain, and consequently it has been the subject of a good deal of discussion. German experts agree that business documents (in the broadest sense of the term) should not be

⁶⁸ An early attempt in the field should be mentioned: *Friedrich Alexander Redlich, *Sitte und Brauch des livländischen Kaufmanns in Veröffentlichungen der volkskundlichen Forschungsstelle am Herderinstitut zu Riga*, III (Riga, 1935). The study, which deals with mores and customs of medieval merchants in Riga, Reval and Dorpat in the Balticum, was accepted as a doctoral thesis in Göttingen in 1934. It contains some interesting material. But at the same time it is a pity that the author did not have any business-historical training. He could have done a most valuable and much better job.

deposited in public archives of the traditional character. It is generally recognized that the latter are not equipped to handle them properly. Instead, business documents should be housed in one of two different kinds of depositories, either *Betriebsarchive* or regional *Wirtschaftsarchive*. Fritz Hellwig⁶⁹ has correctly pointed out that archives of these types took root, when they actually did, because the soil had been prepared by the younger historical school of economics; and that they started, not by accident, at the very time when the first German academic schools of business administration were also coming into existence. Large-scale enterprises and trade associations were the early carriers of the movement.

To begin with the first-named type, a *Betriebsarchiv* is a properly equipped and adequately staffed depository connected with a single enterprise; and, of course, only the largest concerns would be able to set up archives of that type. Again it is significant that the first discussion of *Betriebsarchive* is to be found in Ehrenberg's *Thünenarchiv*, II (1907/09), 695 ff., namely, in the article by Karl Burhenne entitled "Betriebs-Archive," which devotes a good deal of space to the then already existing Krupp archive, founded in 1905. Other early *Betriebsarchive* were those of the Siemens concern (of 1907) which was dispersed and partly destroyed during the recent war, of the I. G. Farbenindustrie, and of the Heintze & Blankertz A. G., Berlin, producers of metal goods and especially pen points. Others were established between the two world wars, most of them in the Rhenish-Westfalian area by enterprises in the fields of steel and coal. How these archives came through World War II is not known, but one can take it for granted that the losses were very heavy.^{69a}

The second type, the so-called *Wirtschaftsarchive*, are regional depositories equipped to house the records of any number of firms (especially companies not large enough to have archives of their own), private records of businessmen, and the papers of trade associations

⁶⁹ In the 1930's and 1940's Dr. Fritz Hellwig took a good deal of interest in the problem of business archives. Having prepared himself for an academic career, he was in those years at various times a chamber-of-commerce official in Saarbrücken, a librarian of the Saarwirtschaftsarchiv, and an official of a branch of the association of German steel producers. In 1951 he became the manager of the newly founded *Deutsches Industrie Institut* in Cologne. (The notes were taken from *The Bulwark*, edited by Vivian Stranders, August, 1951, page 11.)

^{69a} The archive of the once famous Berlin banking house of S. Bleichröder is now privately owned and in New Rochelle, N. Y.

and similar organizations located in the region in question. Hellwig has correctly stressed the great importance for entrepreneurial history of the preservation of *private* papers of businessmen. His observation that business records are often surprisingly inadequate if one is interested in the man who is known to have guided a work during a certain period, is confirmed by my own experience with American business records.

The first archive of the latter type was founded in 1906, namely, the *Rheinisch-Westfälische Wirtschaftsarchiv* in Cologne, which was financed by the city and the chambers of commerce of the area which it covered. This archive⁷⁰ owed its existence to the pioneering efforts of the brothers Alexander and Armin Tille, born in 1866 and 1870, respectively. The former was a leading chamber-of-commerce and trade-association official in Saarbrücken; the latter an archivist and librarian in Dresden. Both were well-educated and cultured men with historical leanings. *Armin Tille's programmatic pamphlet, *Wirtschafts-Archive* (Berlin, 1905), is a "first" in this important field. During the recent war, as I have been able to ascertain, the more valuable part of the *Rheinisch-Westfälische Wirtschaftsarchiv* had been "*verlagert*," to use the German term, i. e., brought to a safe place, and this part survived, while that which had been left in Cologne was destroyed by bombs.

In 1907, following the example of the *Rheinisch-Westfälische Wirtschaftsarchiv*, the *Südwestdeutsche Wirtschaftsarchiv* was founded in Saarbrücken (in 1927 it was rechristened *Saarwirtschaftsarchiv*).⁷¹ A similar organization was launched in Leipzig, styled the *Archiv zur Wirtschaftsgeschichte Leipzigs*; and, as may be mentioned in passing, Switzerland and Holland soon followed suit, influenced by the German example. To be sure, as must be stressed, *Wirtschaftsarchive* are not business archives proper. They collect any manuscript material of economic or business character referring to the region in question, except the material that emanates from government or municipal agencies. The latter material goes automatically into a *Staatsarchiv*.

⁷⁰ As to the operations of this archive, see *Archivalische Zeitschrift*, XLIV (1936), 105 ff.

⁷¹ See *Fritz Hellwig, *Das Saarwirtschaftsarchiv. Würdigung und Aufgabe*, no. 6 of the series *Saarwirtschaftsfragen* (Saarbrücken-Völklingen, 1938).

or a *Stadtarchiv* (a state or municipal archive, respectively).⁷²

For a period of about thirty years *Wirtschaftsarchive* did not develop as had been hoped. In the 1930's, however, the movement received a new impetus and two new archives of this character were established: the *Archiv für Schwäbische Wirtschaftsgeschichte* in Stuttgart (1937) and the *Wirtschafts-Archiv der Wirtschaftskammer für Westfalen und Lippe* in Dortmund (1940). It is not known here if they were able to achieve anything; and after the German collapse the movement probably stopped again. So much about *Betriebsarchive* and *Wirtschaftsarchive*.

Another type of archive, which in some cases should contain rich treasures for the business historian, has to my knowledge never been systematically investigated for source material pertinent to this kind of research, namely, family archives. Well-known among them are the *Cottaarchiv* in Stuttgart (the Cottas having been famous publishers) and the *Fuggerarchiv* in Augsburg, now the basis of important research in the field. But besides the Fuggers there are still other noble families, descendants from medieval merchants, the archives of which, if they exist, may be productive. The above-cited little book on the Rehlingers⁷³ is based on a family archive of that character. Families similar to the Fuggers and Rehlingers were, for example, the Imhofs and Mannlichs. As for the eighteenth century, one can draw attention to the family of the Danish Counts of Schimmelmann, launched to eminence as late as that century by a former Stettin merchant's clerk who became one of the great business leaders of his time. Maybe a modern biography of this man, which is overdue, could be based on a family archive. In the same century, besides other noble families, there were the Saxon Counts of Einsiedel, who owned impor-

⁷² See my report in *Explorations in Entrepreneurial History*, II (1949/50), 102. The German sources are "Deutsche Gesellschaft für Dokumentation, *Die Dokumentation und ihre Probleme* (Leipzig, 1943) containing, on pages 85 ff., Wilhelm Göllich's "Die Dokumentation in den gesamten Staats- und Wirtschaftswissenschaften" and, still more to the point, on pages 97 ff. a paper of Fritz Hellwig, "Die Einrichtung von Wirtschaftsarchiven," which includes a bibliography on the subject. Similar is the latter's treatment of the subject in "Über die Erfassung und Sichtung von Quellen zur Geschichte des Unternehmertums" in **Schriften der Akademie für Deutsches Recht*, Gruppe Wirtschaftswissenschaften, no. 5, entitled *Zur Wirtschaftsgeschichte der deutschen Unternehmung* (Berlin, 1942). See also in the same booklet the papers by Clemens Bauer "Grundsätzliches zur Frage der Wirtschafts-Archive" and by Ernst Zipfel "Über Archivpflege in der Wirtschaft."

⁷³ See above, page 36.

tant enterprises, and, in the nineteenth, the Fürsten Fürstenberg and Henkel von Donnersmark who were business leaders of first rank. The archives of Silesian and Bohemian noble families, such as the Ballestrems, Schaffgotschs, Kinskys, and Harrachs, were probably of the greatest interest while they still existed; if not saved by a miracle, they must be considered lost. If so, they might turn up one day in Polish, Czech, or Russian public archives. Moreover, there were also patrician (bourgeois) families of industrial importance which may have had (and may still have) family archives of interest to the business historian. It would be worth knowing, for example, whether archives are owned by such families as the Poensgens, Haniels, Huys-sens, and Röhlings. Such stock-taking would, of course, be an obligation on the Germans, but it can probably be combined with very useful research projects, such as monographs on the various aspects of German aristocratic entrepreneurship of the eighteenth and early nineteenth centuries.

Finally, no student of German business history can neglect public archives, both state and municipal. For various reasons public archives are much more important for that field in Germany than they are in America. First, German governments and communities have been engaged in business to a larger extent than here. In the eighteenth and the first years of the nineteenth centuries government enterprise in mining, iron industry, salt production, china manufacture, etc. was far advanced in comparison with private enterprise. Government officials were, functionally, true entrepreneurs.⁷⁴ Indeed, they were often genuinely innovating (creative) entrepreneurs. These things are well-known in Germany, although hardly recognized here. I have touched upon the phenomenon in my paper on the German steam-engine industry.⁷⁵ Later, by 1880, the Prussian railroads were taken over by the state, and material on early railroad history will probably be found in public archives. The Saar mines were run by the Prussian government until recent times, and German communities increasingly owned and administered public utilities. Mixed enterprises (so-called *gemischtwirtschaftliche Unternehmungen*) in which government, municipalities, and private enterprises cooperate, typical of the twentieth century, must also have resulted in the deposit of historical business material in public archives.

⁷⁴ Obviously I am not inclined to accept risk-bearing as the decisive element in entrepreneurship.

⁷⁵ See above, page 51.

Secondly, even after the various German governments had started in the early nineteenth century to withdraw from industrial activities, they continued to promote industrial development, as had been common in the eighteenth. No better insight into the latter kind of activity could be gained than by writing a biography of Wilhelm Beuth, the great Prussian government official who for decades was responsible for industrial promotion. That biography should investigate, on the basis of archival sources, his own and his government's role in bringing about the industrial revolution in Prussia by stimulating business and by aiding individual promising enterprises.

Thirdly, all those concerns which produced armaments, such as Krupp, Dreyse, Mauser, or Gruson, and men of war, such as Schichau and Vulkan, can be fully investigated only by making use of both business and public archives. Much material on German investments abroad will probably be found in public archives since the advice of the German foreign office was often requested in advance by the investment bankers concerned, possibly the former even suggesting such activities.

Fourthly, and lastly, correspondence on customs or tax questions, on shipping subsidies, on concessions, on consular service, etc. between government agencies and firms must have been deposited in public archives; and obviously these materials have importance for business history. In some cases one may even find business papers in the narrow sense of the term. For example, the leading Jewish businessman in Berlin by 1700 was one Jobst Liebmann whom Glückel in her recollections—above-cited—called Judah Berlin. When his widow was arrested in 1713, his business papers were attached and they had, prior to World War II, survived in the Prussian Geheime Staatsarchiv in Berlin-Dahlem. If they still exist, they would be an extraordinarily rich source for business history, although, written in Hebraic, Yiddish, and German, they would be hard nuts to crack, especially after the destruction of the German Jewry. On the other hand, the books of Count Egon Cesar Conti on the House of Rothschild⁷⁶ show clearly the limitation placed on an author who, because the pertinent family and business archives are closed to scholars or

⁷⁶ **Der Aufstieg des Hauses Rothschild, 1770-1830* (Leipzig, 1927) and **Das Haus Rothschild zur Zeit seiner Blüte, 1830-1871* (Leipzig, 1928). The archive of the Frankfurt and Naples Rothschild houses was deliberately destroyed by the owners as early as 1902; see *Archivalische Zeitschrift*, XLIV (1936), 114.

have been destroyed, works on a business-historical subject exclusively in public archives.

Those who are interested in entrepreneurial history rather than in firm history will need public archives whenever their men took part in the country's public life. And some did, such men as Hansemann, Mevissen, von Beckerath; and of later generations: Freiherr von Stumm, Dernburg, Walther Rathenau, Stinnes, Hugenberg, Schacht, etc. who became either high government officials or members of the legislature.

Some archival material important for the business historian has been published; and such publications are not only valuable in themselves, but also serve as an indication of what kind of sources can be expected in public archives. Most important for the Middle Ages and early capitalism is the series *Deutsche Handelsakten des Mittelalters und der Neuzeit*, published under the auspices of the *Historische Kommission* of the Bavarian Academy of Sciences. The following eight volumes have been published:

- *Volumes 1-3 *Geschichte der Grossen Ravensburger Handelsgesellschaft*, by Aloys Schulte (1923),
- *Volume 4 *Aus Antwerpener Notariatsarchiven*, by Jacob Strieder (1930),
- *Volume 5 *Welthandelsbräuche 1480-1540*, by Karl Otto Müller (1934),
- *Volumes 6-8 *Das Runtingerbuch*, by Franz Bastian (1944).

Another series, some volumes of which are of importance for the study of a later period, namely, the eighteenth century, are the **Acta Borussica, Denkmäler der Preussischen Staatsverwaltung im 18. Jahrhundert*, sponsored by the Royal Academy of Sciences in Berlin. The volumes on silk industry, edited by Gustav von Schmoller and Otto Hintze (Berlin, 1892), or those on Prussian coinage, edited by Friedrich Freiherr von Schrötter, 3 vols. (Berlin, 1904-1910), are rich in business-historical data.⁷⁷ Of course, one will find in the *Acta Borussica* material only on that sector of Prussian enterprise which was promoted by the government or on which the government depended.

⁷⁷ The data contained in the latter item I have tried to extract in the paper, "Jewish Enterprise and Prussian Coinage in the Eighteenth Century," in *Explorations in Entrepreneurial History*, III (1950/51), 161 ff.

Recent independent publications of source material that need to be mentioned are **Das Handlungsbuch der Holzschuher in Nürnberg von 1304-1307*, edited by Anton Chroust and Hans Proesler in *Veröffentlichungen der Gesellschaft für Fränkische Geschichte*, Series X, No. 1 (Erlangen, 1934), and the one edited by *Percy Ernst Schramm, *Kaufleute zu Haus und Übersee des 17., 18. und 19. Jahrhunderts*, Vol. I of *Veröffentlichungen der Forschungsstelle für Hamburgische Wirtschaftsgeschichte* (Hamburg, 1949).

It is not necessary at this point to give once more the titles of the two indispensable bibliographical tools in our field. They have been cited early in this survey⁷⁸ and repeatedly quoted thereafter. But there is in addition an important bibliographical paper covering the Rhenish-Westfalian heavy industry, namely, Fritz Hellwig, "Die Wirtschaftsgeschichtliche Forschung in der Rheinisch-Westfälischen Grossindustrie" in **Stahl und Eisen*, LXI (1941), 153 ff.

VIII

Before summing up the research on German business history, as here presented, the author wishes to submit for purposes of comparison his findings on the parallel developments in two more European countries, namely, England and France.

In England, to turn first to our Anglo-Saxon cousin, the earliest suggestion pointing to at least a prerequisite of business history was made as early as the eighteenth century. In **The Universal Dictionary of Trade and Commerce* (4th ed., London, 1774), Malachy Postlethwayt proposed the establishment of a "college" for young businessmen.⁷⁹ In drawing up a tentative program therefore he advised

that the college should be supplied with a great variety of complete sets of the real accounts of many distinguished and eminent merchants deceased; they being of no other use to executors after being a few years in their possession, there would be no great difficulty to obtain a great variety of these. If this seminary was furnished with the genuine accounts and letters relating thereto of the . . . merchants . . . who trod the Royal Exchange with supreme credit and dignity, the unexperienced might secure great benefit and advantage, by having judicious lectures read upon the same. For by having the transactions of persons of great experience and discernement before us and their motives . . . laid open as appears by their genuine mercantile letters, no one will doubt

⁷⁸ Footnote 2, page 2.

⁷⁹ Vol. II, article "Mercantile Accountantship."

but great knowledge will thereby be obtained for the conduct of young people; to know only the several ways of trading of the skilful and prosperous is of no little utility, but to be let into the motives of their measures and the address whereby their many hazardous adventures have been conducted is of not less benefit to the young trader than the genuine history of great statesmen and commanders to those who shall aim at following their examples.

It was left to the twentieth century to execute this program, although the material in question was not assembled at commercial "colleges," as Postlethwayt proposed, at least until recently not in Britain.

A. V. Judges, then lecturer of economic history at the London School of Economics, reported in 1936⁸⁰ that in England a good deal of business-historical material had survived in public archives, especially the records of chartered companies. This material began to attract attention after William Cunningham and William Ashley had laid the foundation of modern British economic history. Interest in the latter field was intensified after World War II and questions were then being asked by researchers which could be answered only on the basis of business papers. The majority of the latter, however, if at all, were likely to have survived in the files of business firms. *William Robert Scott through his book *The Constitution and Finance of English, Scottish and Irish Joint Stock Companies to 1720* (Cambridge, 1910-1912) is considered as the British pioneer in the use of business records. But he still relied on such as were preserved in public archives and on *selected* documents only. In contrast *G. W. Daniels was, according to Judges, the first to base his research on a *complete* set of business documents when writing his *Early English Cotton Industry* . . . (Manchester, 1920). Using records of M. Connell & Kennedy in Ancoats-Manchester and letters written by Samuel Crompton, he blazed the trail leading to true scientific business history in England. His book was followed by *George Unwin's *Samuel Oldknow and the Arkwrights* . . . (London, 1924) based on records discovered by chance by a troupe of Boy Scouts in a stable. Thereafter the business papers of Boulton and Watt, the diary of Joseph Rogerson, factory owner at West Riding, and the business records of Benjamin Gott, merchant and industrialist of Yorkshire, became, the basis of research. Finally, Judges, to whom the responsibility for this description must be left,

⁸⁰ "Wirtschaftsakten in England" in **Archivalische Zeitschrift*, XLIV (1936), 131 ff., especially 134, 135.

mentions *A London Merchant (1695-1774)* by *Lucie Stuart Sutherland⁸¹ who made use of papers found in a country house. Her book deals with a trader in gold who had many business relations in Portugal, while Alfred Plummer edited and commented on the records of the weaving mill of C. Early & Co., Ltd., in Oxfordshire in **The Witney Blanket Industry: The Records of the Witney Blanket Weavers* . . . (London, 1934).

This was the British situation in 1936 with regard to strictly scientific endeavors in our field. It goes without saying that by that time historical firm publications were issued year by year also. According to an unpretentious article, published this year,⁸² the total number of British firm histories, both books and booklets (including those of a few pages which are practically of no value), amounts to several hundred. My own estimate would be about 350. A sample of 179 business-historical books analyzed by the British author revealed that

prior to 1918	14	were published
in 1919-1938	67	" "
in 1939-1951	98	" "

The number of new publications is supposed to have increased remarkably after 1945.

In that same sample the following lines of business were found represented:

Printing, publishing, paper trades	by 24 items
Iron, steel, metal trades	" 24 "
Banks and other financial institutions, insurance companies,	
building societies	" 21 "
"Distributive trades"	" 19 "
Machines, shipbuilding	" 17 "
Textiles	" 14 "
Chemical industries	" 14 "
All others	" 46 "
	179 "

The British author comments on those firm histories as a kind of "durable" advertising preferred by firms for whom public relations are of importance in selling and whose products, like ships, are very

⁸¹ London, 1933.

⁸² "When the firm becomes a pub," by Derek Froome in *The Director. The Journal of the Institute of Directors*, III (Apr., 1952). Professor Thomas S. Ashton has been kind enough to make a proof of this paper available to the author.

costly and durable. That knowledge of a work's history is of the greatest importance for the decision-makers within the enterprise does not seem to have dawned on British businessmen.

Until very recently British economic and business historians were not able to select a topic and then start looking for source material, but the accessibility of sources determined the choice of topics. (To be sure, that is the crux elsewhere too!) That situation, it was felt, brought a haphazard element into the advance of economic and business history.⁸³ Consequently in 1934 British businessmen and scholars, convinced of the need of filling the existing gap, brought into existence at London the Council for the Preservation of Business Archives. Its backers were industrialists, bankers, merchants, archivists, and professors. Close cooperation was established from the outset with the British Records Association. To be sure, the funds of the Council were slender, indeed. Its income consisted exclusively of donations of bankers and other businessmen; at one time only it received [Rockefeller] Foundation money.

When the Council was founded, it was to assume the following functions:⁸⁴

1. to promote the study of business history and to make a record of surviving business of early date.
2. to encourage owners to preserve old business documents.
3. to bring qualified historians into touch with new sources of raw material.
4. to provide skilled assistance and advice to owners of documents.
5. to further these ends by the issue of suitable publications.

As a matter of fact, probably in view of its limited income, the Council restricted for years its activities on points 1 and 2 and is only recently beginning to issue publications of its own, as will be discussed later. The Council started by distributing questionnaires to presumed owners of business records asking for detailed information as to their content, as to whether a permanent or temporary transfer into a public depository was agreeable, and whether permission would be granted to scholars to use the documents. This questionnaire was accompanied by an eight-page leaflet entitled *History from Business Records* which introduced the Council to the concern in question. The completed questionnaires became the basis for three card indices in

⁸³ For the following see the *Reports of the Council for the Preservation of Business Archives, eight of which have been published so far.

⁸⁴ Quoted from the *Sixth Report* (1950), 3.

which the material was catalogued according to the name of the owners, the line of business, and the name of the firm or businessman with whom the material had originated. Working out of London implied that information was originally collected on an occupational basis, but soon the possibility of regional field offices came to be explored, their advantages were recognized and some regional investigations seem to have been conducted.

Before long the Council ran into all those problems which baffle their American and German counterparts too: In many cases material had been destroyed only in very recent years; thus it was recognized as desirable to have, besides the above-mentioned card indices, also a so-called "negative file" on such records as were known to be lost or destroyed. Such a file, as was actually established, would obviously save much time to at least some students. Moreover, the material in question is bulky and often the owners proved really unable to keep it. According to the original plan the Council had not expected to collect records, but in some cases it was forced to do so and to place them in reliable depositories. On top of that it made arrangements for a microfilm service so that the content of bulky records could be preserved for posterity without taking much space. Finally, the Council had to devote thought to the question of what to keep and what to destroy, and it arrived at the following conclusion: Most interesting for the historian was information "relating to the terms of employment, wages, markets . . . , relations with customers," policy-making, and methods of finance. "Wage books, ledgers, letters, and minute books" were the principal sources therefor. Consequently waste books, receipts, cash books, and day books could be discarded. The Council pleaded that sequences should not be broken by keeping samples only, as seems to have been customary in Britain.⁸⁵ So far so good! The foreign, i.e., non-British student, will immediately discover lacking emphasis on production records. This bias must have developed during the last hundred years when Britain was the world's financier, insurer, and shipper, while her industry was permitted to go down, very much to the detriment of the living generation.

In the last two years the Council published two volumes of business records: in 1950 *The Letters of Edward Grace*, an eighteenth-century trader with Africa and slave dealer who sold his "commodity" in the

⁸⁵ *Seventh Report*, 3, 4. One should compare these passages with the German program of the 1930's which is reported in Appendix II.

West Indies; and in 1951 the *Diary of Samuel Walker of Rotherham*. In addition its most recent *Report* contains a list of British business documents in public depositories, such as the universities of Bristol and Leeds. Last, but not least, the Council is undertaking a task which was once undertaken in Germany by the Schacht Collection of the Reichsbank and in America is under the care of Dun and Bradstreet, namely, assembling as complete a collection of firm histories as can be brought together. The titles of the books acquired can be found in the Council's *Reports* beginning with Number 5 of 1948.

By 1951 the Council had assembled about 150 items of that character, but it is unknown how large a percentage of the total is represented thereby. Entrepreneurial biographies⁸⁶ seem to be included in the library, but it is not certain whether they are collected systematically together with firm histories. Under these circumstances that figure can hardly be used for purposes of comparison; and it would lead to a mere guess if one were to aim at an estimate of the total number of English firm histories and entrepreneurial biographies. It appears that British banks are now in the vanguard of those enterprises which are interested in their history and have had it written up. So much on Britain!

The number of French business-historical publications is very much smaller than that which Germany and the United States have produced, while it may not be very far from the British total. As a matter of fact, on the basis of the available sample, which will be analyzed later, one can reasonably estimate that the number of independent French business-historical publications (both firm histories and biographies of business leaders) does not exceed the figure of 250. This lagging behind the two leading countries is easily explicable and will be instantly understood by those who know the atmosphere in French business: In France, more than in any one of the other countries here treated, the partnership continued to dominate the field; and the spirit prevailing in the French partnership, typically a family affair, is distinguished from that which characterizes the vast majority of enterprises in the three other countries. For partners in an unincorporated family enterprise business is strictly a private affair. It is to be kept secret as far as possible and the public-relations angle, so impor-

⁸⁶ Early British entrepreneurial biographies are those by Samuel Smiles (1812-1904), for example, the books on George Moore, James Nasmyth, Josiah Wedgwood, and others.

tant elsewhere and especially in America, does not enter the mind of the average French businessman. Consequently, as a rule, he is not interested in having the history of his firm written up. French historians on the other hand, as David Landes has pointed out, have not exerted any pressure on French business leaders to have access to business records. They are on the whole disinclined to deal with modern history, a disinclination which in the case of business history "has been reinforced by a national cultural bias which works to deprecate the importance and interest of industrial and commercial achievements." In the eyes of the average Frenchman the businessman is certainly not a hero. All these factors are bound to militate against the development of French business history;⁸⁷ and no concerted effort comparable with that in Britain is under way, in order to catch up with Germany and the United States.

The trend which ultimately led to this result thwarted an earlier one which might have worked itself out in a way more desirable to scholars in our field, had it been able to persist and develop. From the era of Louis Philippe through the reign of Napoleon III there existed in France a keen interest in manufacture and finance and much was being done to promote factories. The famous Paris expositions of 1855 and 1867 must be seen in this context. Moreover, the widespread speculative frenzy cropping up in France time and again between 1816 and 1914 is indicative of possibilities which in the end were not realized, for early capitalistic development went everywhere hand in hand with speculative manias and milder fevers. The atmosphere favorable to industrial development was promoted by powerful speculative financiers and by businessmen in high governmental positions or at least in the confidence of the rulers. It was reflected in realities, such as the building of the French railroad system and the rise of the modern French textile industry, and in such facts as the success of the French Rothschilds and the career of the Pereires. But it has found an expression also in the literary masterpieces of Balzac and later Zola. The stage was set for French scholarship to lead in the development of what is called business history today.

And in fact for some time it led. As the later tabulation will show,

⁸⁷ See David Landes, "French Entrepreneurship and Industrial Growth in the Nineteenth Century," in *Journal of Economic History*, IX (1949/50), 45 ff.; and *idem*, "Entrepreneurial Research in France," in *Explorations in Entrepreneurial History*, III (1950/51), 24 ff.

France prior to the fall of the empire in 1870 had produced at least twenty-six biographies of business leaders, a figure which cannot be matched by any one of the other countries. To be sure, interest was often focused on businessmen whose activities outside of business were widely known, such as Casimir Périer, or whose names were household words at the time, such as those of the Pereires and Rothschilds. But this is how it started everywhere, and the relatively (i.e., for the time) great number of names which appear on the title pages of those twenty-six biographies is remarkable. The very first item seems to have been Baron de Silvestre's *Notice biographique sur M. le Baron Guillaume Louis Ternaux lue à la séance publique de la Société d'agriculture 6 Avril 1834*, Ternaux being an industrialist who also dabbled in investment banking. The other biographies of businessmen published before the fall of the empire dealt with Laffitte (1844); the Rothschilds (1846, 1847, 1868—two items, 1869); Benjamin Delessert, the banker and early promoter of French savings banking (1850); François de Wendel (1851); Jean Baptiste Randoing (1853); le Baron Th. Ch. J. de Gargan (1854); Ménier (1854); the Pereires (1856, 1858, 1859, 1861, 1863); J. F. Cail (1856); Emile Clapeyron (1858); Casimir Périer (1858); Achille Fould (1859); J. Mirès (1860, 1861); Christophe Oberkampf (1860); Auguste Perdonnet (1867—two items). Of these books two were autobiographies, one emanating from *Jacques Laffitte (1844), not to be confounded with Laffitte's autobiography published by *Duchon in 1934, the other from *J. Mirès, *À mes Juges; Ma vie et mes affaires* (Paris, 1861), which has some fundamental similarity with Strousberg's autobiography.⁸⁸

Moreover, there appeared prior to the fall of the empire several items which under other circumstances might have become forerunners of modern firm histories. As early as 1848 one Meugy published a book, *Historique des mines de Rive-de-Gier*, and between 1855 and 1860 there was put upon the market a work of four volumes which belongs in that field and had then no counterpart in any other European country: *Jean Baptiste Honoré Raymond Capefigue's *Histoire des grandes opérations financières*. This book, very widely used, is an indispensable guide to contemporary French business history because it contains many clues and points to important happenings, but *alas* it is entirely unreliable. I personally would not quote anything from Capefigue's book unless I were sure from other sources that the piece

⁸⁸ See page 39.

of information was correct. To cite an example, which every American business historian can appreciate, Capefigue in one of his volumes speaks about the New York house of "Dunkan," meaning Duncan, Sherman and Company.

Characteristically, Capefigue's book on high finance does not stand alone. In a way it is paralleled by one on French industry, a popular, but nevertheless rather remarkable, publication which appeared in numerous volumes of which the first six are in America (in the Brooklyn Public Library). The series was written by a journalist, who had started as a lawyer, namely, Julien François Turgan, *Les Grandes Usines de France, Tableau de l'Industrie Française en XIX^e siècle* (Paris, 1861 ff.). Volumes III ff. bear the slightly different title *Les Grandes Usines; Etudes Industrielles en France et à l'Etranger*. In fact, in the volumes here available there are sketches of the firm of Krupp in Essen and an Aachen needle factory. If one can trust the preface of Volume I, this book owes its existence to a scholarly interest in the subject. The author describes in a somewhat flowery language that he was attracted by the great spectacle of the battle of the human race against its original limitations, a battle whose victory found expression in modern factories. It seemed unjust to him that historians dealt only with the "gloires militaires" and not also with the "gloires industrielles" which were neglected. It was for this reason, so the author closes the preface, that he had written this book which was not meant to be a treatise, but a picture or, to put it differently, a balance sheet of the material progress of mankind made up to the year of 1860. According to this program the author presented essays of numerous enterprises. These essays begin usually with a sketch of the history of the industry to which the particular concern belongs, followed by a history of the enterprise in question, leading up to a description of the work carried on, with the emphasis on technological achievements.

But there were still some more contemporary items of interest: a passing mention is deserved by a book which is not strictly business historical in character but contains material interesting to the student of that branch of economic history, namely, *A. Audiganne, *Les Chemins de Fer aujourd'hui et dans cent ans*, 2 vols. (Paris, 1858 and 1862). And last, but not least, there appeared in the reign of Napoleon III what may well be the earliest French firm history, namely, the **Histoire du Crédit Mobilier, 1852-1867* (Paris, 1867). Its author was one Aycard and his well-documented book is supposed to have been written on the order of a director of the Crédit Foncier and at the

instigation of Fould, enemy of the Crédit Mobilier, to embarrass the latter. One should compare the motive back of this publication with those which prompted the first German and the first American firm histories. The difference is striking.

These hopeful beginnings petered out. The reason why should be explained by an expert in French history. Was the defeat of 1871 so stunning and the downfall of the Empire so depressing that France was driven from the road toward modern industrialization which it had entered and which was accompanied by an early blossoming of business history? Or had the men around Louis Philippe and Napoleon III forced the country upon a road which was not suitable to its national character, so that it was abandoned as soon as the pressure ceased? And consequently, was that remarkable early interest in business history artificial and had to be abandoned concomitantly? Be that as it may, the process as such is evident from the tabulation on Page 71 of the available sample of 186 items, consisting of 70 firm histories, 102 entrepreneurial biographies, including histories of industrial families, and 14 collective biographies.⁸⁹

A few more words must be said, however, before the tabulation is presented and discussed. Even before they are broken down, the above figures are of great interest, especially when compared with the corresponding ones for two of the other nations here surveyed. Germany possessed at the end of 1951 about 5,000 firm histories as against about 200 entrepreneurial biographies, while the United States up to that moment had produced about 750 firm histories and about 450 entrepreneurial biographies. That is to say, in those countries firm histories exceeded entrepreneurial biographies, although in various ratios; in France alone the ratio is so far inverse. Now let us look at the tabulation on Page 71.

⁸⁹ The sample used in the following analysis is based on titles collected by David Landes in the course of his studies on French economic history. His cooperation, which included assistance in analyzing the material, has been highly appreciated. Additional titles were derived from the catalogues of Widener and Baker Libraries, from "Henri Sté, *Histoire Economique de la France. Les Temps modernes* (1789-1914)" (Paris, 1942) and Arthur L. Dunham, "The Economic History of France, 1815-1870" in *Journal of Modern History*, XXI (1949), 121 ff. See also John E. Sawyer, "The Entrepreneur and the Social Order, France and the United States" in *Men in Business* (Cambridge, Mass., 1952), 7 ff.

Available Sample of French Business-Historical Publications
 (By Decade of Publication)

	Firm histories	Entrepreneurial biographies	Pertinent collective biographies ⁹⁰
Prior to 1850	1	4	—
1850-1859	—	12	1
1860-1869	1	10	3
1870-1879	2	5	1
1880-1889	1	5	2
1890-1899	5	8	1
1900-1909	11	8	1
1910-1919	5	8	—
1920-1929	16	12	—
1930-1939	23	14	1
1940-1951	4 ^a	10	1
Date not identified	1	6	3
Total	<u>70</u>	<u>102</u>	<u>14</u>

^a This figure is undoubtedly much too small.

The books of Capefigue, Turgand, and Audiganne were not included in the tabulation since they cannot be designated as firm histories; but in studying the tabulation as to the latter, one should remember them.

As soon as one looks at the two columns of biographies, the falling off of the interest by 1871 is evident, and evident at first glance. Moreover, the tabulation shows how slow the revival of interest has been; and when it really came, in contrast to the original tradition, it was stronger in firm history than in entrepreneurial biography. Thus what has been shown to be the unique French situation may disappear before long if there should be a real awakening of French interest in our field.⁹¹

If the sample of French firm histories is broken down, as has been the material for other nations, it shows the following distribution of 70 items:

Finance	23
Transportation	18
Heavy industries	11

⁹⁰ With regard to French collective biographies, the student should realize that titles referring to "ouvriers," "artisans," and "inventeurs" may disguise items on businessmen. Of course, the use of such terms for businessmen is significant in itself.

⁹¹ As to the collection of, and the earliest attempts at preserving, business records in France, a reference to Sabbe's report in *Archivalische Zeitschrift*, XLIV (1936), 116, 122, must suffice.

Other industries	6
Insurance	5
Trade	5
Miscellaneous	2

In view of the smallness of the sample no percentage figures are presented. To these 70 items a few have to be added which are synthetic in character, the books of Capefigue, Turgand, and Audiganne, cited before, the more recent very satisfactory **Histoire documentaire de l'industrie de Mulhouse* (Mülhausen, 1912), and some of Bouchary's books.⁹² The last, although based on primary sources, will hardly satisfy the American business historian. Taken by groups, the insurance companies and next the railroads have issued the most valuable monographs, especially noteworthy being **Le Centenaire de la Nationale* [insurance company] (Paris, 1930). Besides the last-named item, the following two can be considered as outstanding examples of French business-historical research: **Louis-Maurice Jouffroy, Une étape de la construction des grandes lignes de chemins de fer en France—La Ligne de Paris à la frontière d'Allemagne* (1825-1852), 3 vols. (Paris, 1932), and Gaston Motte, *Motte Bossut, un homme, une famille, une firme, 1843-1943* (p. p., Tourcoing, 1944).

With respect to businessmen's biographies, an analysis reveals that a maximum of satisfactory research has been expended, both in the German and French eras, on the leaders and industrial families of the Mulhouse textile district. In addition, the Rothschilds, Pereires, and the de Wendels (steel industrialists) and individual members of these families have attracted the greatest attention. Of all the available items the most satisfactory ones may be **Pierre de Joinville, L'Armateur Balguérie-Stuttenberg* (Paris, 1914), and **Marcel Rouff, Tubeuf. Un grand industriel Français au XVIII^e siècle d'après ces papiers personnels* (Thèse, Paris, 1923). There are only four businessmen's autobiographies in the sample, three of which have been cited. The fourth is F. H. Besnard, *Souvenirs d'un nonagénaire* (Paris, n.d.), the

⁹² **Le marché de changes de Paris à la fin du XVIII^e siècle (1778-1800)* . . . (Paris, 1937); **Les Compagnies financières à Paris à la fin du XVIII^e siècle*, 3 vols. (Paris, 1940-1942); **Les Manieurs d'argent à Paris à la fin du XVIII^e siècle* (Paris, 1943); **Les Faux-monnayeurs sous la révolution française* (Paris, 1946). Other books of Bouchary are counted at their proper places.

author having been a businessman in the time of the Empire.⁹³

IX

It seems hardly possible by way of conclusion to present the findings of this study (to the extent that it relates to German material) in better form than as a tabulation showing the dates of the most important events in the field:

- 1825 The first German firm history (Lauchhammer).
- 1848 The second German firm history (Königliche Bank, Berlin).
- 1871 The first entrepreneurial history celebrating an anniversary (Litfass, Berlin).
- 1880's Banks and publishers begin to have histories of their enterprises written.
- 1890's The writing of firm histories begins to become a "mass phenomenon," so to speak.
- 1905 Ehrenberg publishes the first issue of the *Thünenarchiv*.
- 1905 Founding of the first *Betriebsarchiv* (Krupp).
- 1906 Founding of the first regional *Wirtschaftsarchiv* (*Rheinisch-Westfälisches Wirtschaftsarchiv*, Cologne).
- 1907 Ehrenberg publishes the first truly scientific business-historical item (*Unternehmungen der Brüder Siemens*).
- 1909 Matschoss issues the first volume of his *Beiträge zur Geschichte der Technik und Industrie*.
- 1927 The first specialist in writing firm history gains academic status (Däbritz in Cologne).
- 1935 Wiedenfeld launches his project of collecting systematically material for entrepreneurial history.
- 1937 Publication by Corsten of the first bibliography of firm and entrepreneurial histories.

The staggering of the dates in the 1900's and 1930's illustrates a well-known fact: here as almost always scientific progress did not take place

⁹³As to the countries not treated in this report, samples of Swiss and Dutch firm histories available at Baker Library seem to indicate that they follow approximately the German pattern. A greater number of firm histories seem to have been written in the Scandinavian countries. Some of them are rather voluminous and gorgeously laid out and printed. Lack of knowledge of the Scandinavian languages makes an analysis of this material impossible for this author.

steadily, but in jumps. The 1900's and the 1930's are the really fruitful decades in the development of German business history.

No academic institution did more for German business history than the *Handelshochschule* (later merged into the new University) in Cologne. By 1900 its library was the first to see the value of and to collect firm-historical material; and in the 1930's it provided us with a valuable bibliography of this kind of literature. In Cologne the teaching of economic history was developed for the purpose of educating future business leaders, an endeavor which by necessity led to the teaching of certain aspects of business history. On the Cologne platforms there taught such men as Schmalenbach, who understood the importance of an historical approach to business problems; Kuske, the economic and business historian; and, at least temporarily, Wiedenfeld and Däbritz. Wiedenfeld's lifelong interest in the business leader may well go back to inspirations received in Cologne. Last, but not least, it is worth noting that Cologne became the seat of the first German *Wirtschaftsarchiv*. In contrast, while Matschoss, Feldhaus, and Stillich worked in Berlin, none of them was connected with either the university or the *Handelshochschule*; and Matschoss alone had academic affiliations, namely, with the institute of technology at Charlottenburg.

One more random remark may be permitted before concluding this survey. While nothing was further from the mind of the reporter than going after a contribution to the theory of generations, the material contained in the study unintentionally, but not unexpectedly, represents such a contribution. Here are the birthdays of the main early exponents of German business history:

Richard Ehrenberg	1857
the Tille brothers	1866 and 1870
Wilhelm Berdrow	1867
Kurt Wiedenfeld	1871
Conrad Matschoss	1871
Oskar Stillich	1872
Franz Maria Feldhaus	1874
Bruno Kuske	1876
Walter Däbritz	1881

Disregarding Ehrenberg who was in this respect not ahead of his time, but ahead of his contemporaries of age, all the early great figures in our field were born between 1866 and 1881. That is true of the two

early promoters of regional business archives, of the two historians of technology who were drawn into the writing of firm histories, of the first specialized business historian, and of the first independent researcher attempting to carry his investigations beyond the framework of a single individual enterprise. As to Kuske, the first to develop a program of teaching economic history at *Handelshochschulen*, who thus became interested in business history, one can be doubtful if he belongs to the same or the following group of coevals. (The latter appears more probable to me.) That Däbritz belongs to the later one is certain. It was the unity of problems, not the unity of solutions, which here as always determined the confluence of men maturing in a certain time into a group of coevals, whose members are intuitively aware of a kinship whenever in their lives they cooperate or struggle with older and younger men. On the other hand, to the historian investigating the rhythm of generations they appear to be akin because of a certain identity of their preconceptions, a certain similarity of their performances, and because of their wrestling in different ways with a common problem.⁹⁴

APPENDIX I

Professor Kurt Wiedenfeld's Questionnaire

used in the 1930's during a systematic campaign aimed at collecting biographical material on German business leaders. (The translation appeared first in *Explorations in Entrepreneurial History*, vol. IV, 1951/52, pp. 39-42.)

Deutsche Akademie
(Munich)

Section for Research on German Political Economy
Chairman: Professor Dr. K. Wiedenfeld

Berlin-Grunewald
Ilmenauer Strasse 2a
Telephone: 89 60 43

Biography of German Leaders in Business and Technology

The plan for the Deutsche Akademie (Munich) to collect basic material for a biography of German business leaders had its start in the belief that the *Allgemeine Deutsche Biographie* was very unsatisfactory with regard to business and the economic life of the nation. On the other hand, the biographies of German engineers, as they are published in the *Jahrbuch der Technik*, necessarily put the emphasis on the technical achievements of these men. Consequently knowledge of German leaders in business and economic life is entirely lacking.

⁹⁴ As to the theory of generations, see my book *History of American Business Leaders* (Ann Arbor, 1940), 22 ff.

This situation is a clear expression of the fact that German public opinion does not realize the creative aspect of business and economic achievements and the importance of the men behind them. As is well known, a certain opinion prevails that within the German economy only big businessmen and those lines of business the character of which is determined by corporations are of importance.

Under these circumstances it seems necessary to start in the broadest way possible specific research pertaining to the whole field of German business and the German national economy. The goal is to obtain a reliable picture of the degree to which men have been the carriers of German economic development and of the extent to which they have shaped it. Our present knowledge already leads to the conclusion that the Industrial Revolution and the industrial era opened thereby were initiated and later expanded by men starting small enterprises. Innovation usually began in a small way and as a rule the creative entrepreneurs responsible therefor did not incorporate their businesses. Even today only where mass production is necessary and therefore the determining factor are German industries dominated by gigantic concerns. It seems typical of German industrial organization, in contrast to that in other countries, that light industries are still widely conducted by medium-sized enterprises. In these, quality is the determining aim and individual ownership is the rule.

Last but not least, the biographical material will show that in all lines, including those now dominated by large-scale industry, the overwhelming majority of leading men consisted of descendants of the German middle classes and that a good part of them have risen from the working class or have been but one generation removed therefrom. From the contemplated research we will gain factual knowledge as to what extent personality and ownership or capital, respectively, were and are essential for attaining leadership in business. Only on the basis of factual material will we be able to answer the question as to whether men make economic history or are merely dependent organs of capital, a problem which would thereby be removed from the area of speculation to that of scholarship. Scholarly treatment of the problem involved would now be especially important in view of the all-out fight against Marxism in which we are engaged.

In the execution of the plan with which I have been charged by the Deutsche Akademie I propose to proceed as follows:

Within the economic regions of the country and within the areas of German settlements abroad experts on local conditions will collect material for a card index of those men and women who gained particular importance for the economic life of their communities during the nineteenth century. This importance may lie in their introducing a new technology or a new sort of organization or a new kind of business connection. Equally of interest are those people who organized whole lines of business by way of trade associations, Kartelle, and the like.⁹⁵ Finally it is also desirable to consider government and communal administrators who created new possibilities for business in their districts and who provided far-reaching incentives.

As a rule, a final opinion on the importance of a man can be made only after his

⁹⁵ The words "berufsständische und marktwirtschaftliche Formen", are not exactly translatable, but the transposition shows what is meant.

death or at least after his life work is completed. Consequently the birth year of 1870 will in general form the limit determining which men should be taken into consideration. On the other hand, the Seven Years War would appear a justifiable *terminus a quo*. This implies that the subjects of this research are men born between 1770 and 1870. Whether or not the research should be extended to include both older and younger generations must be left for later decisions.

In the original collection of material one should not be over-cautious. The question as to whether or not a particular man was really a leader can be decided only when the material is being worked up later. The answer may differ according to whether the German national economy or a district or a particular industrial line forms the frame of reference. I wish to stress this point: keeping it in mind will facilitate the collection of material deferring final judgment until the time when all the material can be evaluated.

Both administrative agencies and industrial and trade organizations will undoubtedly value the possession of biographies of businessmen. On the other hand, it would be of great importance to have them centrally located in an organization of scientific character (for example, the Deutsche Akademie). But only later can it be determined if and to what extent the material will be published.

With regard to the technique to be applied in the collection of the data, reference is made to the Appendix. Of course, uniformity for the whole of Germany is requisite.

(signed) Kurt Wiedenfeld

QUESTIONNAIRE (see Explanations)

Name:

Given names: (underline first name)

Birth Date and Place:

Father: (business or profession)

(incl. social characteristics)

Ancestors of father and mother:

general characteristics and social status:

Career:

Achievements:

Writings:

References to printed sources:

[Appendix] In filling out this questionnaire the following points should be kept in mind:

1. Complete the sheet as laid out; only in extreme cases attach a second sheet.
2. Present data in short form so that the essentials, not the details, of career and achievements are brought out.
3. Use abbreviations if generally understandable. [Examples]
4. Technological achievements should be characterized only in general terms. In case of inventors and engineers who became business leaders the emphasis should be put on their entrepreneurial achievements, such as the establishing or enlarging of an enterprise, its elevation to importance, work in trade associations, *Kartelle*, and other organizations not merely technical in character.
5. With regard to the development of an enterprise, only the most important general characteristics are to be given, e.g., regarding the line of business, such

designations as machine tool factory, steam engine works, cotton textile factory, etc.; transformation into a corporation, G. m. b. H., etc., or vice versa.

6. Predecessors and successors in enterprises are to be characterized only in general terms; for example, taken over from his father; bequeathed to sons or sons-in-law. If predecessors or successors were themselves important special questionnaires should be completed for them.⁹⁶

APPENDIX 2

German Plans of the late 1930's and early 1940's for the Organization of Business Archives

Dr. Fritz Hellwig (Cologne, Germany) on request of Dr. Arthur H. Cole made the following material available which is deposited in Baker Library (Mas. Div. Z 1250):

1. Fritz Hellwig, *Anregungen für den weiteren Ausbau von Wirtschaftsarchiven*, publ. in no. 11 of the *Mitteilungsblatt des Generaldirektors der Staatsarchive* (1938);
2. Reichswirtschaftskammer Tgb. Nr. III 154/39, *Betrifft: Erfassung, Sicherung und Pflege des Archivgutes in der deutschen Wirtschaft* (April 25, 1939) accompanying the transmission to several agencies of:
3. Der Generaldirektor der Staatsarchive [Dr. Ernst Zipfel] A. V. 785 (February 1, 1939) *Erfassung, Sicherung und Pflege des Archivgutes in der deutschen Wirtschaft*;
4. [Werksarchivausschuss "Eisen und Kohle" bei der "Verbindungsstelle Eisen für Schrifttum und Presse" des Verbandes der Eisenschaffenden Industrie] *Aufgaben der Werksarchive und Richtlinien für ihre Anlage* (Düsseldorf, 1938).⁹⁷

⁹⁶ In the heading of the item the *Deutsche Akademie* is characterized as "Akademie zur wissenschaftlichen Erforschung und Pflege des Deutschtums." The phrase has been omitted as untranslatable.

⁹⁷ See also the following important papers in *Archivalische Zeitschrift*, XLIV (1936): Karl Demeter, "Private Wirtschaftsarchive in Berlin"; Etienne Sabbe, "Wirtschafts-Archive"; and A. V. Judges, "Wirtschaftsakten, ihre Sicherung und Benützung in England." Demeter's paper presents a very sad picture as to Berlin which will have become even sadder after World War II. Sabbe's paper, published also in *Les Archives, Bibliothèques et Musées de Belgique*, XI (1934), 7ff., contains much valuable information and noteworthy titles. Judge's paper reports on the beginnings in England of interest in business records and the foundation of the Council for the Preservation of Business Archives.

From this material the student is able to gain the following impression: By 1940, the German government, then in power, was promoting the establishment of business archives. It was being planned to establish in connection with each *Industrie- und Handelskammer*⁹⁸ a regional *Wirtschaftsarchiv*, except in those cases in which an economic region was divided among two or more such organizations. In those cases the latter were to cooperate in establishing *one* such archive. Advisory committees consisting of representatives of the various industries and other lines of business and of historians, including the state archivist in charge of the area, were to be appointed on the regional and *Reich* levels. If one reads between the lines and if one knows Nazi methods, one might suspect that according to the plan at a later date the deposit of certain archival material in those archives would have been enforced unless the enterprise established a supervised *Werksarchiv*. But this suspicion cannot be proved.

Wirtschaftsarchive, once brought into existence, were to collect not only unprinted sources, but also printed primary material, namely, reports of corporations, plant regulations (*Betriebsordnungen*), by-laws, firm publications, newspaper clippings, advertisements, circular letters of enterprises and of trade associations, *Kartelle*, chambers of commerce, and the like. The archives within their areas were to advise and supervise the privately owned archives of trade associations and other organizations of the same character, if established, and the existing and future *Werksarchive* while they collected and administered the archival material of those enterprises and organizations which were not large enough to establish archives of their own. Moreover they would make the deposited material available for research and according to the needs of business and business organizations. Special attention was to be devoted to the training of competent personnel.

In the course of their advisory and supervisory activities *Wirtschaftsarchive* were to impress large concerns, setting up *Werksarchive* of their own, with the idea that a *Werksarchiv* corresponded to the memory of living men. Past and present joined hand in the archive. It helped to avoid losses and difficulties which had repeatedly occurred in big enterprises for lack of exact information on past policies and procedures. Thus, to a certain extent, it would pay for itself.

⁹⁸ An *Industrie- und Handelskammer* corresponds roughly to a chamber of commerce, except that the German organizations are semi-public and have many official functions.

The success of a *Werksarchiv* depended on the spirit in which it was established and run. Only if the leading men of the concern were convinced of its necessity and if they impressed the lower echelons with the need for their cooperation, would it live and grow. Especially old personnel (old timers) would have to be encouraged all the time to write down what they know about the past and deposit the material in the archive. No piece of paper was to be destroyed when it contributed to historical knowledge regarding all business, economic, technical, scientific, and cultural activities of the firm concerned. If the top-man would not himself take the responsibility for the *Werksarchiv*, such responsibility would have to be assigned specifically to a particular officer of the company. The latter would have to consider it as one of his main tasks to bring about cooperation between the various departments of the enterprise, especially the head file clerk and the archivist. At specified terms the head of the department concerned, the chief file clerk, and the archivist would have to decide as to which sets of papers were no longer currently needed, so that they could be handed to the archivist. In some cases it might prove wise to keep in the file room even older material not currently needed, but in this case such papers should be marked and a note kept in the archive.

How the papers were to be stored in the archive depended on the space available, although under no circumstances should lack of space be a reason why no archive should be established at all. Once deposited, papers could be arranged according to their origin so that all those originating in one plant, one department, and the like were permanently kept together; or according to their character. In the latter case a list should be kept indicating where each set of papers had originated. Moreover, at the time when papers were taken over into the archive their content should be noted briefly and the note inserted at the beginning of the set, while a second copy would be entered in a subject catalogue. This catalogue in turn would serve as the basis of the indispensable card index of the archive. The card index would insert the same document under several headings and the archivist should keep in mind that the finer the breakdown, the more useful the archive. Subject catalogue and card index were to be supplemented by another catalogue listing the items according to the year in which the deposit took place.

While it appeared impossible to set up a list of business papers

which should be preserved in each and every case, the preservation of the following material was recommended:

- A. Material relating to the founding of the enterprise in question, especially records of negotiations preceding its establishment, those referring to the actual establishment, and biographies of the men concerned.**
- B. Current business documents:**
 - 1. on administrative matters such as:
 - a. contracts of all sorts; concessions and licenses of all kinds; negotiations with railroads, shipping lines, port authorities; share holders lists; records of legal matters (mortgages, patents, taxes, stamps, and process records); records of stockholders and directors meetings; monthly balances; yearly reports together with all the material on the basis of which the reports were drafted; other reports and statistics compiled for internal use together with the primary material which was at their base.
 - b. documents relating to the work force and work conditions: medical care, pension funds, company houses, members of the force working in the enterprise for more than a certain number of years; rules and regulations; rest and vacation homes for workers, play grounds, workers' cafeterias, cooperatives, scholarship and other beneficial funds; wage tariffs and contracts with unions; personnel records; circular letters referring to such matters.
 - 2. on technical matters, such as reports by members of the staff and outside experts on experiments and research; memoranda and reports on plants, on the closing of plants, on the wrecking of plants and parts thereof; reports on technological progress achieved outside the work at home and abroad, for example in connection with competitions, exhibitions, etc.; reports on visits in other works at home and abroad; records of meetings of plant officials; records regarding machines and laboratories; cost computations and the basic material therefor; material on piece wages, prices; documents relating to the building and rebuilding of plants with emphasis on preservation of records on older plants and buildings. In case of mines: the records of borings, the sinking of shafts, deposits, seams, water and other damages, etc.
 - 3. on business transactions proper, i.e., correspondence, including all material on purchases, especially purchases of essential raw materials and purchases made under extraordinary circumstances; material on sales, especially in all cases in which there were difficulties either in the production or the sale; records regarding *Kartelle* and trade associations; records regarding tariffs of railroads and shipping lines, customs duties, and other matters of commercial policy.
- C. Accounting records and production records (*Betriebsbücher*).** This collection should include note books of foremen and other plant officials, especially for older periods in which the recording was not as exact as it is supposed to be at present.
- D. Printed and mimeographed material.** Assuming there is a work's library collecting pertinent books and periodicals, the archive should collect all publications of the firm which might be of interest to the historians of technology and

business. In addition there should be collected everything that was published on the firm in question in books, periodicals, and newspapers; company papers; and publications of [and, curiously enough this item being omitted: on] members of the staff and working force.

E. Maps, plans, drawings:

1. maps and plans showing the topographical development of the works;
2. plans showing the layout of the works;
3. drawings of the plants, machines, furnaces, forges, etc., etc., and of the products if they were innovations or extraordinary achievements;
4. maps and plans of mining rights, water rights, rights of way, etc.; of ore, coal, etc. deposits; of shafts and underground installations.

F. Pictures and photographs, including portraits, movie films, phonograph records.

G. Recollections of owners, presidents, and other leading men; of staff members; and workers.

H. Material regarding the repercussions of and the reaction to historical events.

J. Family histories of the owners, the leading men, and all others who contributed to the success and the development of the enterprise.⁹⁹

⁹⁹ It must be understood that this is not a literal translation of the *Aufgaben der Werksarchive* (cited above as item 4), but a paraphrase understandable to American readers.

